I. NEEDS ASSESSMENT

Planning. The Minnesota Department of Health (MDH) initiated a statewide needs assessment of Maternal and Child Health (MCH) issues in August 2003. The goals of this process were to: (1) determine Minnesota's priority needs for the MCH populations and (2) enhance the stakeholders' and MDH staff's commitment and participation to the process; and (3) increase the state's commitment to addressing the final priorities. The process began with a review of the 2000 Needs Assessment process and the data available to MDH in relation to the three primary MCH populations: (1) pregnant women, mothers and infants, (2) children and adolescents, and (3) children with special health care needs (CSHCN).

While the data review was conducted, a MDH Title V Needs Assessment Working Group (NAWG) was formed to serve as a planning group. The eleven members and a facilitator were selected based on knowledge, expertise, and experience regarding the populations of interest. This group also included persons involved in other MDH projects related to the Needs Assessment (e.g., the MDH MCH Advisory Task Force and the CAST-5 data project). The NAWG began meeting in November 2003. The 2005 Title V Needs Assessment provided the vehicle that allowed MDH staff across the various MCH population groups to work together for an extended period of time.

The data review was presented to the NAWG. Given the depth and breadth of available Minnesota MCH data, the NAWG agreed that data needed to play a stronger role in developing the needs assessment methodology than it had in the past. Attention was given to including both qualitative and quantitative data, capitalizing on existing data, providing the opportunity to consider issues that had limited related data and/or were emerging public health concerns, and insuring that the products and investments related to the process would continue to be utilized after the initial needs assessment.

Following a review of the methodology of Minnesota and other states' 2000 needs assessments (i.e., Utah, Washington, Massachusetts, Wisconsin, and Nebraska), and a conversation with an Epidemiologist from the Washington's Department of Health, the NAWG decided to proceed with a modified Pickett-Hanlon approach to the needs assessment[1]. This approach was revised to capitalize on both qualitative and quantitative data, the available funds, the time allowed for the assessment, and the NAWG's commitment to balance of the top ten priorities across the three MCH populations. In addition to the reviewed data and the expertise and experience of the persons involved in the needs assessment process, the selection of the priorities was based on four criteria. These included: (1) the size of the problem (i.e., percentage of persons directly affected by issue); (2) seriousness of the problem (based on the issues of

health disparities, economic loss, and indirect effect of the issue on other people); (3) the effectiveness of intervention on the issue; and (4) community support in addressing the issue (including awareness and concern or advocacy). The capacity of MDH to address the given issue was reflected in both the effectiveness of intervention and community support. After this initial planning, the needs assessment proceeded through what was basically a four phase process (see Timeline in Appendix A).

Phase I: Initial Issue Selection First NAWG members developed a list of 23 to 29 priority issues by MCH population group (pregnant women, mothers, and infants, children and adolescents, and CSHCN). The three lists were compiled following a review of the Healthy People 2010 objectives and the priorities of other statewide groups (e.g., Minnesota Department of Education, Governor's Council on Developmental Disabilities, Minnesota Children with Special Needs Parent Group, and local public health) and reports (e.g., Healthy Minnesotans 2005). In addition, in order to meet the selection criteria, staff also reviewed the data related to the specific populations and solicited feedback from MDH staff and/or community stakeholders. Upon completion of the initial list of issues by population, MDH staff members developed a fact sheet for each issue (see examples in Appendix B; see http://www.health.state.mn.us/cfh/na/factsheets/index.html). The four scoring criteria (size, seriousness, intervention, and community support) guided the composition of the fact sheets. Available and current data were incorporated into the fact sheets, both quantitative and qualitative. When data specific to Minnesota were unavailable, national data were used.

Phase II: Prioritization Retreat I A group of professionals and family members associated with the one or more issues of the population group of interest were asked to attend the first priority selection retreat. In addition to expertise in MCH issues, the invitations to Retreat I were issued based on professional/family role, geographic location, gender, and race or ethnicity. As a result, each of the three MCH sub-population committees selected a working group of 25 to 36 persons. Hence, three of the initial priority selection retreats (a.k.a, Prioritization Retreat I) were held. These groups by population were responsible for narrowing the list of 23-29 issues to ten. Across populations, this resulted in a total of 30 issues following the three first level retreats, i.e., ten priorities for each population group. The Retreat I meetings occurred in July, August, and September of 2004.

Members of the selection groups were asked to review the fact sheets for their population group, score each issue based on the four criteria, and attend an all day retreat. Upon arrival, participants were divided into small groups where they discussed their scores for each of the issues. The prioritization scores were summarized during lunch. The large group then

reconvened and together selected ten priorities per population group by consensus. Given that some of the original 22-29 priorities by sub-population group were collapsed into a single category, data that are more current became available, or unforeseen issues were raised, the fact sheets were revised accordingly for the ten priorities that were selected at each of the Retreat I meetings. This resulted in a total of thirty issues and fact sheets to be considered at Prioritization Retreat II, the third phase of the process.

Phase III: Prioritization Retreat II Each of the NAWG sub-population committees then selected an average of eight participants for the third phase of the process. The participants had attended one of the first prioritization retreats, and again represented both stakeholders and family members associated with the issues at hand. Similar to Retreat I, invitations were distributed to maximize diversity and representation across the three populations. The final 23 participants included six representatives of communities of color, 17 representatives of the Twin Cities area and six persons from greater Minnesota, four men, two parent advocates, four community clinic providers, three researchers or academicians, and four public health professionals.

Retreat II required prior preparation and a full day commitment of the participants. This group reviewed the thirty fact sheets and rank ordered them by the three population groups. Upon convening, the group met in small groups to discuss their prioritization. Rank order data were compiled during lunch. The mean ranking by issue allowed the group to see the average ranking of each issue and compare these averages against the mean rankings of the other issues within each population. The range of rankings by issue allowed the group to see how much the rankings varied for an issue by population. Finally each issue was considered in terms of the number of persons who ranked it as one of the top five issues. This comparison was shared to reveal the strength of agreement that the issue should be included as a top five issue. These statistics were selected based on the feedback received from the Retreat I participants.

The large group then reconvened. The process then proceeded by population. First the results based on the rank order data were shared. The Retreat II attendees then participated in a facilitated discussion after which the group selected the five top priorities for the given population. In some cases the participants felt very comfortable selecting the top five issues as they emerged from the ranking data, whereas the prioritization of other issues by sub-population required lengthy discussion before consensus could be reached. This process occurred for each of the three population groups. These fifteen priorities continued on to the final stage of the selection process.

Phase IV: Prioritization Retreat III The NAWG agreed that in order to most effectively address the final priorities, MDH administration and staff also needed to commit to the process

and future efforts to address the prioritized issues. In addition, the MDH staff was more able than the previous two groups to thoroughly consider the MDH's capacity and ability to address the priorities of interest. Thus for the final stage of the process, 22 MDH administrators and staff were selected to attend the final half day retreat. The participants included the NAWG members, an assistant Commissioner of the Minnesota Department of Health, the Community and Family Health Division Director, and MDH leaders in the areas of health disparities, epidemiology, family health, and other relevant areas.

Prior to the meeting, fact sheets for each of the fifteen issues were provided to the participants. MDH attendees were asked to rank order these by MCH population, based on the information on the fact sheets and their expertise. These rankings were summarized prior to the meeting. After a brief welcome and overview of the day, the meeting was structured by population group. First, the chairs of the particular population subcommittee of the NAWG presented data relevant to the "final" five issues for their population group. The summary data related to the group's rankings were then presented. Members then discussed the issues and selected the three final priorities for the population. This selection was established by a majority vote. This process occurred for each of the three MCH populations, resulting in the selection of nine priorities.

Given that ten priorities are permissible, a subsequent twenty-minute discussion ensued related to the selection of one more priority from the remaining six issues. After discussion, a final priority was selected based on popular vote. The list of the final ten priorities is found in Appendix C. Additionally, Appendix D lists all of the priority issues that were initially considered at the beginning of the process and how they were reduced down to the final priorities.

In sum, the final ten priorities were selected based on many factors. These included collaboration within MDH, collaboration of MDH with invested stakeholders and community members; quantitative and qualitative data, and primary and secondary data.

The process does not conclude with the selection of the top ten priorities. The fact sheets serve as an excellent tool for MDH staff and the community-at-large. Eventually the fact sheets for each of the initial 76 issues will be posted on the web. To date, the fact sheets of the top ten priorities have been posted (see http://www.health.state.mn.us/cfh/na/factsheets/index.html). Despite the emphasis on the final ten priorities, the top fifteen issues will all be monitored to determine if progress has been made in addressing these issues. The fact sheets will serve as a resource in outlining data resources, providing helpful information to MDH staff and their community collaborations, and will also serve to remind MDH, other state staff, public health

practitioners, and legislators of the MCH priorities. These priorities will guide grant writing efforts, fund allocation, and prioritization of staff time investment whenever feasible.

The strategy of collaboration was used throughout the needs assessment process in hopes of maximizing input from a variety of public health professionals and parents associated with MCH populations. The collaboration should increase support in emphasizing and addressing these priorities for the next five years. Collaborations occurred within the Minnesota Department of Health (MDH), between various state government offices and between MDH, family advocates, and other MCH public health professionals. The latter section of this report addresses these collaborations and their specific efforts.

The application of the modified Pickett-Hanlon method to the Minnesota Title V Needs Assessment resulted in the incorporation of both primary qualitative and secondary qualitative and quantitative data. Primary qualitative data were based on the discussions of experts at each of the Prioritization Retreats and semi-structured interviews conducted with MDH staff and community experts who were not able to attend the Prioritization Retreats. Secondary quantitative data sources included national data (e.g., U.S. Census data and SLAITS data) and statewide data (e.g., Minnesota Birth Record data and Minnesota Student Survey). Secondary qualitative data sources included document review (e.g., reports by MDH and other public health entities), related existing focus group data, and discussion group data collected at the initial issue meetings and at each of the prioritization retreats. In developing the fact sheets for each of the 76 issues, NAWG members applied great effort to include the most current and relevant data available.

Capacity Assessment The development of the fact sheets for each of the 76 original priority issues, required some level of capacity assessment in the components related to effectiveness of intervention and community support. Staff reviewed known interventions and analyzed what was currently underway as far as activities and support at both the state and local level for every issue. This provided a good sense of existing capacity for a relatively wide array of MCH issues across all pyramid levels. The process of updating the performance measures on an annual basis also provides a good opportunity to review capacity and related progress, or lack thereof, for each measure.

Additionally, Minnesota's Title V program has used some of the CAST5 tools to assess capacity. In 2003, with technical assistance form AMCHP, we engaged in the assessment of our data capacity by applying the CAST5 process to Essential Services 1, 2, 5, 9, and 10. The outcome of this multi-day activity is further detailed in the summary report in Appendix E and noted in this years block grant.

As we have identified our new State performance measures for the next 5 years, we have begun work at the Section level for both MCH and MCSHN to again apply some of the CAST5 tools for a more detailed capacity assessment for each priority. Over the next year we intend to complete this CAST5 activity for each of the 10 state priorities.

Strengths and Weaknesses As with any new or existing process, it is useful and constructive to consider the strengths and weakness of the process planning, design, and implementation. In general, the strengths of the needs assessment process greatly outweighed the weaknesses.

The first strength was the breadth and depth of data included in the assessment. The incorporation of both state and national quantitative secondary data allowed the inclusion of a great variety of epidemiological issues in the fact sheets. Enhanced depth of understanding was achieved via primary and secondary qualitative data. The inclusion of both types of data allowed for the consideration of varying degrees of objective and subjective data.

The modified Pickett-Hanlon approach encouraged a great number of collaborations to be established, maintained, or enhanced. These collaborations included those within MDH staff and other collaborations of MDH staff with administration, other state offices, and community stakeholders, including service providers, researchers, and family members.

Each of the three MCH populations has unique and important issues to address. The collaboration within MDH allowed the importance of each sub-population to be understood and appreciated by staff. This in turn enabled staff to emphasize this understanding to other invested groups. As a result, the process insured that the final priorities were quite equally distributed across the three sub-population groups.

Finally an enormous amount of time and effort was dedicated to the research and development of the fact sheets related to each of the issues. The fact sheets served as critical tool in the needs and capacity assessment process. They will continue to be an important and useful resource for MDH staff, community stakeholders, and the greater community. Continual updates based on time and data availability will assist in monitoring the progress in addressing each of the issues. The monitoring will help facilitate progress reports for the Maternal and Child Health Bureau in relation to the Title V funding.

Despite the great number of strengths associated with the Minnesota needs assessment, as with all studies a few weaknesses must be acknowledged. First the process required an enormous amount of time and energy. The number of collaborations established, the amount of data incorporated, the 76 fact sheets developed, the five prioritization retreats organized and attended, and the numerous planning meetings demanded great dedication from the NAWG members, other

MDH staff and administration, other state agency staff, and community partners. This investment seems to have enhanced and solidified the overall commitment to the process and the final ten priorities, but nonetheless the expenditures required were substantial.

Although the fact sheets provide an invaluable tool for many public health professionals, to be most effective this resource requires continuous updating. For the updates to be successful and efficient, the NAWG members will have to prioritize this effort and commit a monthly slot of time to this effort. It remains to be seen whether staff availability and demands will allow for this commitment.

PARTNERSHIP BUILDING AND COLLABORATIONS

In order to promote success in the needs assessment process, many levels of collaboration were encouraged, established, and utilized. First, new collaborations were initiated within MDH. The Director of the Maternal and Child Health program initiated the Needs Assessment Working Group (NAWG). The members of the NAWG previously had had very few opportunities to work with other members for any extended period of time. This collaboration resulted in the members' greater respect and understanding of the issues faced within each of the MCH sub-populations. This enhanced understanding of the issues faced across the various MCH sub-populations lead the members to insist upon a process that would promote equality in the 2005 priorities by sub-population.

Collaboration within MDH was also promoted by the involvement of additional people in the process of the selection of the initial 76 priorities. Facilitators of the NAWG sub-population committees selected these participants, that included representation from Family Health/Mental Health, Tobacco Prevention and Control, Family Health/Youth Risk Behavior, School Health, Health Statistics, and Environmental Health. Many MDH staff involved in the selection of the initial 76 issues were previously not familiar with the Title V MCH needs assessment and the selection of priorities. Their participation in the needs assessment promoted their awareness, commitment to the process, and determination to address the final priorities.

NAWG also promoted understanding of the needs assessment process for a variety of other state agencies and community professionals invested in MCH issues. NAWG designed and carried out presentations to enhance collaborations of MDH with other state agencies and public and private organizations who are invested in the MCH populations. Audiences for the educational presentations included the MDH MCH Advisory Task Force, regional MCH Coordinators' Groups, Twin Cities' Health Start, Public Health Nurse District Consultants, and The Governor's Interagency Coordinating Council for Young Children with Disabilities. Persons

at these various meetings included public health nurses, tribal MCH coordinators, special education representatives, public health agency representatives, parents of children with special needs and other health care consumers, part C planners, health plan representatives, and Minnesota Department of Health and Human Services staff, and the Minnesota Department of Education. These presentations informed critical parties about the needs assessment process and in turn enhanced their commitment to the process and the final priorities. The presentations also served as an initial recruitment strategy for the Prioritization Retreat I participants and subsequently Retreat II participants.

Finally, the retreat participants exemplified a diverse and critical collaboration in the process. The selection of members for this collaboration was very strategic to insure representation and/or expertise for various demographic factors, including profession, race/ethnicity, gender, and geographic location. The attendees were extremely committed to the needs assessment process as demonstrated by the time and effort they shared with MDH and their interest in the related data. The discussions not only prioritized the various needs, but also identified themes, provided methods by which to address the issues, and also enhanced collegiality and unification between the participants.

In sum, it is clear that much of the success of the needs assessment process must be accredited to the various collaborations and individuals and organizations represented within the various partnerships. The importance of collaboration was emphasized through each stage of the needs assessment — planning, design, and implementation. Future measures to address the various issues will also depend on collaborations both within MDH and between MDH and its various partners.

ASSESSMENT OF NEEDS OF POPULATION GROUPS

The needs assessment process resulted in three to four priority issues being selected for each MCH sub-population. This selection was based on much qualitative and quantitative data that were related to various aspects of the particular issue. Given this, the following section highlights the top three to four priorities related to each sub-population. Particular attention is given to the data that highlight the severity of the issue to be addressed and its related factors.

PREGNANT WOMEN, MOTHERS, AND INFANTS

U.S. Census Bureau estimates that Minnesota's 2003 population includes 1,093,415 women of childbearing age (15 to 44 years old)[2]. According to U.S. Census data, 65,072 infants under the age of one lived in Minnesota in 2000. Based on 2003 data, there were 83,292 pregnancies in Minnesota that year, which gives a pregnancy rate of 76.0 per 1,000 women, ages

15 to 44. Of these pregnancies 70,053 (84.1%) resulted in live births[3]. Currently there are 1,255,141 families in Minnesota. Of these, 1,187,027 include a mother living with children under the age of 18. Married couple families compose 81.1% of the families in Minnesota and single mother families account for 13.4%. Nearly 15% of the single mother families include a child under the age of six[4].

Three priority issues were identified in relation to pregnant women, mothers and infants in Minnesota. These include unintended pregnancies, health disparities in mothers and infants, and early and adequate prenatal care.

Unintentional pregnancy. Unplanned pregnancy is a risk factor for late or inadequate prenatal care, exposure of the fetus to alcohol, tobacco smoke and other toxins, maternal depression, low birth weight, and neonatal death. National data estimate that as many as 49% of pregnancies are unintended[5]. In 2003 there were over 68,000 births, 350 fetal deaths, and approximately 13,000 abortions in Minnesota. These estimated 82,000 pregnancies occurred among the 1,096,832 women of childbearing age (15-44 years) in the state. This would represent an estimated 40,180 unplanned pregnancies in Minnesota each year. Disparities in unintended pregnancies by income are indicated in the 1995 National Survey of Family Growth where the percentages of unintended pregnancies by Federal Poverty Level (FPL) are: 61% for women <100% FPL; 53% for women 100-199% FPL; and 41% for women at greater than 200% FPL[6].

The cost of unintentional pregnancy is potentially very great. The Minnesota Department of Human Services (DHS) estimates there were 18,553 subsidized deliveries in 2001 at an average cost of $3,386 for a total of $62,819,540. There were 22,144 recipients of first year services at a cost of $6,894 per recipient. This resulted in a total annual cost of $152,669,942. If an estimated half of those births were from unintended pregnancies, the estimated cost for births and first year services from pregnancies begun without intent was $107,744,741[7].

Access to quality family planning information and services is an important factor in planning for healthy pregnancies and preventing unplanned pregnancies. For women with health insurance, access to contraceptives is less of a barrier. States with mandates for comprehensive contraceptive services (five leading methods) have 92% coverage for contraceptives compared to 61% coverage in non-mandate. States[8]. Minnesota is a non-mandate state, and rates of uninsured in Minnesota are much higher among populations of color, Hispanics, and American Indians than whites. These rates are also higher among whites in greater Minnesota than in the metropolitan area[9]. As a related indicator of access to health care for women, according to Minnesota birth certificate data, rates of inadequate/no prenatal care are three to four times higher among populations of color compared to whites.

Health disparities in mothers and infants. While Minnesota enjoys a high level of health status indicators overall, there are significant and highly concerning disparities in health status measures for populations of color and American Indians – particularly in outcomes related to women and infants. Because the health status of mothers and infants is highly affected by the social conditions in which they live, it is also important to make note, at least generally, of some of these key indicators, which all show disparities to the disadvantage of populations of color and American Indians. Table 1 provides an overview of some of these social condition indicators.

Table 1: Social Condition Indicators by percent for Select Populations in 2000 [10]

	African - American	American Indian	Asian	Hispanic	White
Poverty	27.1	28.6	18.9	20.1	6.7
Poverty – children <18 yrs	34.2	35	24.3	23	6.2
Unemployment – males/females	11.7 / 12.0	15.7 / 14.0	5.3 / 5.4	7.7 / 8.7	4.2 / 2.9
Education – less than high school	21	25.5	28.8	41.9	10.8
Education – bachelor or advanced degree	18.7	8.8	36.1	14.0	27.9
Housing – own	32	49	52.3	42.9	77.2
Housing – pay >50% of income	22.6	18.9	15.0	15.1	14.6

In 2003 the self-identified racial composition of women who gave birth was mostly white (84.1%). The remaining 16% of the women who gave birth self-identified as African American (7.6%), Asian (5.5%), and American Indian (2.0%). The birth rate per 1000 teens 15-19 years old for 2001 – 2003 varied by race as follows: African-American 122.1; American Indian 112.4; Asian 67.9; Hispanic 129.8; and White 29.4[11]. By geographic region, 2003 birth record data revealed that 61.4% of Minnesota births occurred in the seven county metro region. The majority of Minnesota births within populations of color also occurred in the metro area[12].

According to 1997-2001 Minnesota birth certificate data, rates of inadequate/no prenatal care are three to four times higher among populations of color in Minnesota (African Americans (12.4%), American Indian (17.4%), Asian (9.8%), and Hispanic (11.2%) compared to such rates for white pregnant women (3.2%)[13].

Between the time periods 1989-1993 and 1997-2001, the percent of premature births decreased in all racial/ethnic groups except for White, which increased slightly. However disparities still exist so that approximately 1 of 10 African American, American Indian and Asian

babies are born premature compared to 1 in 14 White and Hispanic babies[14]. The change in low birth weight (under 2500 grams) from 1989-1993 to 1997-2001 have been less than one percent for all racial and ethnic groups except African Americans, where the LBW decreased from 11.5 to 9.1 percent. This is still the highest disparity in comparison to low birth weights for American Indians at 5.8 percent, Asians at 6.4 percent, Hispanics at 4.8 percent, and Whites at 4.0 percent.

Mortality rates for infants and mothers differ greatly by race and ethnicity. Based on 1996-2000 data neonatal mortality rates (deaths that occur before the 28th day of life) are particularly disparate between African Americans (8.5/1,000), American Indians (6.2/1,000) and whites (3.4/1,000). In other words, African American neonates are 2.5 times more likely and American Indian neonates are 1.8 times more likely to die than their white counterparts[15]. In Minnesota, American Indian (5.7/1,000) and African American infants (4.2/1,000) suffer much higher rates of postneonatal mortality (deaths that occur from 28 to 365 days of life) compared to white infants (1.7/1,000)[16].

Maternal mortality rates are based on women who die while pregnant or within one year of termination of pregnancy, irrespective of cause. Based on 1990-1999 data, African American women died of pregnancy-associated issues at a rate 2.4 times higher than the white rate. The American Indian women's pregnancy-associated death rate was 2.8 times the white rate[17].

Insurance coverage is a critical asset in acquiring access to health care. Results from the Minnesota Health Access Survey of 2004 show some significant changes between 2001 and 2004 of insured rates for women and children. Between 2001 and 2004 uninsured rates increased for all children (birth-17) from 6.4% to 7.7%. In the Black population (birth-17) rates decreased from 16.9% to 12.4 %, but this is still double the White rate of 6.4%. The overall non-White rate for 2004 is 16.0% with Hispanic being highest at 31.6 % (up from 19.7% in 2001). Within the Birth to 5 year old group, the uninsured rate rose from 5.7% in 2001 to 9.2% in 2004. This Birth to 5 year old uninsured rate is higher than the overall uninsured rates for the 6-12 age group (7.0%) and the 13-17 age group (7.1%). The rates of uninsurance for women in the childbearing years (15-44) increased from 11.5% to 12.8% overall. Table 2 describes these changes for women.

Table 2: Percent uninsured at some point in the year for women 15-44 years of age – by race/ethnicity

Population	2001 - %	2004 - %
Women 15-44 overall	11.5	12.8
White	10.2	10.6
Black	28.9	27.5
Hispanic	31.0	42.8
Other	18.4	17.1
All Non-White	24.4	26.9

Early and adequate prenatal care. More than one in five pregnant women in Minnesota (21.7%), whose pregnancy was covered by Medicaid Assistance, received inadequate or late prenatal care[18]. Based on Minnesota data, 83.6% of prenatal care began in the first trimester.[2] Annually, this would represent over 11,150 births with care beginning in the 2nd or 3rd trimester or where mother received no prenatal care. As noted above in the disparity section, women of color and American Indians have a lower rate of adequate prenatal care than White mothers. Though the percent of African American, American Indian and Asian women who received adequate or intensive prenatal care has increased by over 10 percentage points between 1993 and 2001, and the disparity has narrowed, the percent receiving adequate or intensive prenatal care is still very low compared to Whites.

There are many measures of adequacy of prenatal care, including some of the following. This existing data is somewhat piecemeal, rather than providing one overall measure for quality of prenatal care. New information is becoming available about the importance of oral health to a healthy pregnancy. Changes in hormone levels, such as occur during pregnancy, can exacerbate symptoms of gingivitis and promote development and progression of periodontal diseases. Researchers found that pregnant women with periodontitis were 7.5 times more likely to have a preterm low-birth weight infant than control subjects[19]. According to national PRAMS data, only 34.7% of pregnant women received dental services during their most recent pregnancy[20].

Prenatal care visits provide the opportunity for information to be shared and issues to be discovered through screenings. Minnesota is a newer PRAMS state, with data analyzed at this time only for the 8 month period of May through December of 2002. However, this data provides us a beginning picture of screening activities during prenatal visits. This initial PRAMS data

indicates that women were asked about these issues during their prenatal visits: physical abuse by partners, 52 percent; if someone was hurting them (emotionally or physically), 60 percent; how much alcohol they were drinking, 74 percent; how alcohol could affect their baby, 74 percent; use of illegal drugs, 66 percent; how using illegal drugs could affect their baby, 61 percent; and, postpartum or "baby blues", 76 percent. This PRAMS data also tells us that 82 percent received prenatal care as early as they wanted, that 91 percent were satisfied with the advice they got, and that 93 percent were satisfied with the respect/understanding they got. All of which could be important to accessing prenatal care in subsequent pregnancies.

CHILDREN AND ADOLESCENTS

According to 2000 Census data Minnesota had 1,218,894 children ages 1 to 17 years and an additional 284,191 older adolescents/young adults between the ages of 18 to 21. In the same year, almost 30% of Minnesota's population was 19 years or younger. Census data from 2000 revealed that of the 1,256,894 children ages 0 to 17 years in Minnesota, 121,691 (9.7%) were below poverty level; and 231,289 (18.4%) were from populations of color (i.e., population minus white alone non-Hispanic). Overall (all age groups) the non-White population in Minnesota in 2000 represented 10.6% of the population[21]. Populations of color are younger than the White population, with well over one-third of each racial/ethnic group being children under the age of 18 to about one-fourth of the White population.

Four issues were given high priority for this sub-population in relation to the MCHB Title V needs assessment. These priorities included: (1) teen pregnancy and sexually transmitted infections (STIs); (2) Child abuse and neglect; (3) Mental health; and (4) Access to quality, comprehensive healthcare, well child care, immunizations, and dental health.

Teen pregnancy and sexually transmitted infections. Teen pregnancy and sexually transmitted infections are potential reproductive health outcomes that impact youth and have possible lifelong ramifications. According to the 2004 STD Surveillance data, adolescents and young adults are disproportionately impacted by STIs. In Minnesota a third of chlamydia cases and over a quarter of gonorrhea diagnoses occurred in youth, ages 10 to 19 years. In the same year, more than seven in ten chlamydia cases and 56% of gonorrhea cases were diagnosed in people between 15 and 24 years old. During 2004, 8,171cases of chlamydia and 2,372 cases of gonorrhea in adolescents and young adults were reported, reflecting an 8% increase in the chlamydia rate since 2003[22].

While STI rates are highest in Minneapolis and St. Paul, cases of chlamydia were reported in every Minnesota County in 2004. One in three Chlamydia cases occurred in Greater

Minnesota (i.e., outside of the Minneapolis-St. Paul metro area). Females are disproportionately impacted by both chlamydia and gonorrhea. In Minnesota 2004 data revealed that 76% of reported chlamydia cases and 58% of reported gonorrhea cases are female. (It is unknown how much of this disparity is related to higher screening rates among females). [23].

STI rates also differ greatly by race. The chlamydia rates for African Americans (1456 per 100,000) are two to nearly thirteen times greater than those for their white (113 per 100,000), American Indian (396 per 100,000), and Asian (260 per 100,0000) counterparts. Similar comparisons can be found in examining the gonorrhea rates by race. Finally, STI rates vary by geographic area. Minneapolis and St. Paul report the highest chlamydia and gonorrhea rates, followed by the suburban metro area, and then Greater Minnesota.

Teen pregnancy is also a reproductive health issue of concern. For the years 2001-2003, Minnesota's overall teen pregnancy rate for young women aged 15-19 was 38.3 per 1000. In the same period, the teen birth rate was 27.2 per 1,000 for this age group[24]. This was 4,892 births to mothers, ages 15-19[25]. Nationally, nearly one-quarter of teen mothers have a second birth before age 20[26]. Overall, Minnesota has low 1999-2001 adolescent pregnancy rates compare to other states, yet when examined by race and ethnicity we see some startling facts. For Minnesota's youth of color, teen pregnancy rates are two to four times higher than white teens (32.1/1,000), with African American (131.7/1,000) and Latina/Hispanic young women (119.1/1,000) most likely to experience a pregnancy[27].

Child abuse and neglect. Statewide, the number and rate of substantiated instances of child abuse and neglect have varied little throughout the decade. In 2002, 10,000 of Minnesota's children (or 7.6 per 1,000) were abused or neglected, and an additional 5,329 children were involved in alternative response programs (families who are provided services but without a determination of abuse or neglect)[28].

For cases receiving a response in 2002, neglect accounted for the majority of allegations (around 60 percent). Physical abuse accounted for about 37 percent, sexual abuse for 14 percent, and mental injury for less than one percent. Of the four maltreatment types, neglect had the highest determination rate at 52 percent, followed by sexual abuse (42 percent), physical abuse (36 percent), and mental injury (35 percent)[29].

In the 2004 Minnesota Student Survey, youth answered the following question, "Has any adult in your household ever hit you so hard that you had marks or were afraid of the person?" Responses varied by grade and gender. In the same year, youth also answered the question, "Has any older/stronger member of your family touched you sexually or had you touch them

sexually?" Females at each grade level consistently reported much higher levels of sexual abuse than their male counterparts (see Table 3).

Table 3: Percent of Students Who Report Physical and Sexual Abuse Within the Family, Minnesota 2004.

	Males		Females	
Grade	**Physical Abuse**	**Sexual Abuse**	**Physical Abuse**	**Sexual Abuse**
6th Grade	14	1	13	3
9th Grade	9	2	14	4
12th Grade	7	2	10	4
Source: Minnesota Student Survey 2004				

Children with disabilities are particularly vulnerable to abuse and neglect. Current national data indicate that compared to other children, children with disabilities are 1.6 times more likely to be physically abused; 2.2 times more likely to be sexually abused; 1.8 times more likely to be neglected than typically developing youth. In addition, children with disabilities are much more likely to be maltreated by a family member or someone they know than children without disabilities. Youth are also more likely to be abused if they have multiple disabilities versus one disability[30].

In 2002, African American/Black (35.9/1,000) and American Indian children (30.6/1,000) were approximately seven times more likely to be determined victims of maltreatment than were white children (4.8/1,000)[31]. In that same year, families who neglected children were more likely to experience multiple family issues including substance abuse[32]. In the same year, just under 10 percent of all determined victims had at least one subsequent determined report of maltreatment within one year. American Indian children had the highest 12-month recurrence rate of 11.4 percent, followed closely by African American/Black children (11.1%) and children of two or more races (11.3%). Asians had the lowest 12-month recurrence rate (2.1%), followed by white victims (8.6%)[33].

Mental health promotion and suicide prevention. The Children's Defense Fund of Minnesota estimated in 2004 that 145,000 Minnesota youth aged 9-17 had a diagnosable disorder and approximately 69,000 had a functional impairment due to a mental illness[34]. National data reveal that among children with mental disorders 13% are anxiety disorders, 10% are disruptive disorders, 6% are mood disorders, and 2% are addictive disorders[35]. Minnesota's younger children (ages 6-11) have lower levels of behavioral and emotional problems (3.7%), compared to national samples (6.3%), but higher levels for older youth (10.6%) than the nation (7.4%)[36].

Suicide was the second leading cause of death for Minnesota White males ages 15-24 and the third leading cause of death for their Asian and American Indian counterparts[37]. For females 15-24 years suicide was the second leading cause of death for all groups except African American females where it was the third leading cause.

The 2004 Minnesota Student Survey of 6th, 9th and 12th graders revealed that 14% to 28% of the students by gender and grade had considered suicide in the past year. Females in 9th grade reported the highest rates of 28%[38]. It is perhaps not surprising then to find that 9th grade females also were more likely to agree with the following statements, "Sometimes I think that I am no good," (38%), "I feel I can't do anything right," (26%), and "I feel that my life is not very useful" (21%)[39].

Disparities in mental health exist between races, income levels, and juvenile offender status. As indicated in Table 4, children below 200% of the poverty level have been associated with higher levels of behavioral and emotional problems compared to higher income youth[40].

Table 4: Children with behavioral/emotional problems – by poverty level

	Minnesota	United States
Above 200% poverty:		
Ages 6-11	3.4%	4.2%
Ages 12-17	8.3%	5.9%
Below 200% poverty		
Ages 6-11	4.6%	9.3%
Ages 12-17	19.3%	10.3%

Approximately 21,775 children under 18 years old received some type of mental health service through public dollars (county and state) in Minnesota in 1999. These services reached an estimated 30% of the total number of children with emotional disturbance in Minnesota.[41] In 2001, Minnesota's county-based, publicly funded mental health system served over 20,000 children.[42] While American Indian, African American, Asian and Latino children make up 16

percent of the state's general child population, they comprised 22.4% of children in the publicly funded children's mental health system.[43] Youth from communities of color have been less likely to access available mental health services, to receive needed mental health care and more often receive poor quality care than their Caucasian counterparts[44].

Children within the juvenile justice system have a high prevalence of mental disorders. In one study, 66% of boys and nearly 75% of girls in juvenile detention had at least one psychiatric disorder. High rates of depression and dysthymia were also identified in 17% in boys and 26% of detained girls. About 50% of these youth were abused or addicted to drugs and more than 40% had either oppositional defiant or conduct disorders[45].

It is difficult to accurately measure how many children and adolescents have received treatment for mental health problems because of the fragmented mental health care system[46]. However, it is estimated that fewer than 1 in 5 children who suffer from a mental illness severe enough to cause impairment, receive treatment[47]. In 2003, approximately 4.5% of children ages 12 or younger enrolled in an HMO received any mental health services compared to 11% of 13-17 year olds. Less than 2% of these children received inpatient services, and for those who did their was a twelve day average length of stay[48].

Among 5-14 year olds, mental health disorders were the tenth leading cause of emergency department treatment but the leading cause of hospitalization in Minnesota in 2001. This accounted for more than 15,000 hospital days and 25 million dollars in expenditures[49]. This same year, mental health disorders were the sixth leading cause of emergency department visits and the second leading cause of hospitalization for youth aged 15 to 19 years old with a total of 33,000 hospital days and 45 million dollars in expenditures[50].

Numerous studies have shown that untreated mental health problems can develop into more serious psychosocial impairments as the child matures, placing them at risk for school failure, dropping out, and being placed in more restrictive settings (e.g., juvenile detention facilities and care and treatment centers)[51]. Minnesota youth face a number of obstacles in accessing mental health care. In the state, there are 4.6 child psychiatrists for every 100,000 children, compared to 6.73 for every 100,00 children in the United States as a whole[52]. Children and adolescents in non-metro counties face additional barriers to mental health treatment as most of these counties have a shortage of mental health professionals; specifically child psychiatrists[53].

Access to quality, comprehensive healthcare, well child care, immunization, and dental health. Assuring optimal health for all children, adolescents and their families through quality, comprehensive, well-child health care is a major goal for those interested in maintaining and improving the public's health. As well as receiving attention for illness, comprehensive care

includes timely well-child examinations, immunizations, and routine dental health examinations and treatment. It was shown that children in poor families experienced a disproportionate burden of health problems especially related to vision and hearing, behavior, elevated blood lead, and oral health[54].

Insurance coverage is a critical issue in relation to health care access. Uninsured children are at risk for health problems and are less likely to receive proper medical care for childhood illnesses. Between 2001 and 2004 **uninsured** rates increased for all children (birth-17) in Minnesota from 6.4% to 7.7%. In the African American population (birth-17) the uninsured rate decreased from 16.9% to 12.4%, but this is still almost double the White rate of 6.4%. The overall non-White rate (birth –17) for 2004 is 16% with Hispanic being highest at 31.6% (up from 19.7% in 2001[55].)

Within the birth to 5 year old group, the uninsured rate rose from 5.7% in 2001 to 9.2% in 2004. This birth to 5 year old uninsured rate (9.2%) is higher than the uninsured rates for the 6-12 year age group (7.0%) and the 13-17 year age group (7.1%).[56] The non-White rate remained relatively stable for this birth to 5 population, while the White uninsured rate increased from 4.2% to 8%.

Minnesota children with family incomes below 200% of poverty have uninsured rates that are about three times higher than the rate for all children[57]. More than eight in 10 uninsured Americans come from working families. Nearly 70% of the uninsured are in families with one or more full-time workers[58].

Greater accessibility of primary care is associated with better health outcomes[59]. Almost 17% of Minnesota parent's reported that appointment scheduling made it difficult to get their child in for a well-child visit in 2002[60]. Nationally, when compared with other children, Hispanic/Latino children were most likely to have unmet needs and least likely to have a usual place of health care[61].

Adolescents and young adults have unique healthcare issues and are most likely to be without a usual source of care and have lower ambulatory visit rates. Foregone care is common among teens, especially among those who are older, low-income, uninsured, from minority backgrounds, or involved in high risk behaviors.[62] Too few adolescents have access to appropriately designed and delivered health screening, preventive counseling and medical treatment. A number of challenges contribute to this issue. First, Minnesota faces a lack of health care providers who understand adolescent health and enjoy working with teens. Second, there is a lack of easy access to services at convenient times and places that are "youth-friendly. Third, confidentiality for sensitive health services is difficult to find. Finally youth face

difficulties in health care service financing when they seek services outside of the traditional health service system. Due to these factors, adolescents generally use health care services the least of any age group and are the least likely to seek care through traditional office-based settings[63].

The quality of child health supervision at well-child checkups varies greatly between primary care practices as evidenced by a national survey of parents. [64] It appears that there are missed opportunities to screen for developmental delays and/or social-emotional issues. In this survey, 36% of parents with infants 4-9 months and 56% of parents with children 10-35 months identified anticipatory guidance topics not discussed that they would have found helpful. Topics included discipline strategies, toilet training, childcare, reading, vocabulary development and social development[65]. Although professional guidelines encourage the routine provision of developmental screening, a substantial proportion (57%) of parents with children 10-35 months of age do not recall their child ever being screened[66]. Geographic disparities exist and children living in the Twin Cities metropolitan area are more likely to receive well-child checkups than children living in Greater Minnesota. Data from the Minnesota Department of Human Services for children on Medical Assistance and MinnesotaCare confirm that participation rates for children in Hennepin (67%) and Ramsey (60%) counties are significantly higher than in many rural counties such as Big Stone (45%), Houston (45%), Mahnomen (45%), Roseau (45%) and Todd (42%)[67].

All Minnesota regions and the state as a whole have made significant and sustained progress in increasing childhood immunizations in the last decade. Still, one in five two-year olds did not receive all the recommended immunizations. For kindergarteners in 2001, 19% had not been fully immunized by age two. Although Minnesota's statewide immunization rate always comes out in the top 15 states within the CDC studies, there are pockets of under-immunized children in some of our high risk populations. The following "pockets of under-immunization" are evident in Minnesota:

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- Children who live in low-income areas (Childhood immunization levels are as low as 45% in some low-income zip code areas.)
- High-risk children are behind on hepatitis B vaccine (Children who were born, or whose parents were born, in countries where hepatitis B virus is endemic are at high-risk of contracting hepatitis B but studies show that older high-risk children in this population are less likely to have received three doses of the hepatitis B vaccine.)[68].
- In 2001-2002 the percent of Minnesota children who are not fully immunized by age two differs radically by race/ethnicity[69]. Of white children, 15% had not been fully

immunized by age two. This figure is considerably lower than the rates for African American (38%), American Indian (27%), Asian (34%), and Hispanic children (35%).

While Minnesota effectively uses the federally-funded Vaccines for Children to supply vaccines for uninsured children and ensure affordable vaccines for all children, information from a parent barrier survey tells us that it's difficult to keep immunizations up to date when they don't get started on time, or to keep up with shots when their kids are "too sick". Providers comment that pediatric immunizations and recommendations are changing so rapidly that it is difficult to keep on top of it all.

Oral health is also a concern in relation to comprehensive health care. A number of factors increase the vulnerability of persons to tooth decay. These include: (1) primary incisor decay before age 4[70]; (2) families who are homeless/low incomes/cultural minority/without dental insurance; (3) children with special health care needs[71]; and (4) mothers with high caries rates who pass cariogenic organisms to infants[72]. For each child without medical insurance, there are almost three children without dental insurance[73].

Low-income and minority children have a higher prevalence of dental caries, have a higher percentage of untreated lesions than have their peers, and are less likely to have had a dental visit in the last year[74]. Approximately 5 percent of children under 18 have untreated dental problems, but the percentages are substantially greater for African American children (39%) and Mexican American children (60%).

In MN 2003, more than 391,000 children under age 21 were enrolled in Medicaid and only about 126,000 received any dental visits[75]. Of these children, only about 20 percent received protective sealants on any permanent molar tooth[76]. In 2004, there are about 3,000 active practicing dentists in MN and only about 30 are in the specialty practice of pediatric dentistry[77].

CHILDREN WITH SPECIAL HEALTH CARE NEEDS

Of the 1,361,616 children between the ages of birth to 18 in Minnesota[78], 12.4% are estimated to have one or more special health care needs[79]. This is approximately 168,840 children and youth across the state. Three priority issues were identified for this population: comprehensive mental health screening, evaluation and treatment services; early identification and intervention; and access to care.

Comprehensive mental health services. According to federal estimates approximately 54,000 (9%) of children ages 9 to 17 in Minnesota have a serious emotional disturbance[80]. An estimated 45,050 children and youth with special health care needs in Minnesota required mental health care or counseling in 2001[81]. However, in reviewing primary care medical records of

children seen in the MCSHN Development and Behavior Clinics, few children's records show documentation that the provider ever asked about behavior, emotional health, academic or social relationship concerns.

Several issues obstruct diagnosis and treatment of mental health disorders for CSHCN. Once a mental health concern has been identified through screening, the shortage of pediatric mental health professionals often results in delayed evaluation. It can take from six to eight months for a child's condition to be evaluated depending on the suspected condition and the geographic region of the state[82]. Then, the average waiting time to see mental health professionals is three to four months. Over 14% of children and adolescents with special health care needs who need mental health care do not have access to care.[83] The ratio of child and adolescent psychiatrists per 100,000 children for the US is 6.73 compared to Minnesota's ratio of 4.6 per 100,000 children. Providers from culturally diverse backgrounds and out in the rural areas are very scarce in Minnesota.[84]

The CSHCN population is more likely to experience mental health disorders than children without special health needs. Of adolescents in the general population, one to three percent are diagnosed with depression compared to 15% of teenagers with asthma and 25% of children and teenagers with inflammatory bowel disease[85]. More than half (54%) of the children with special health needs receiving special education services were reported as needing mental health care, compared to 19% of the children with special health care needs who were not receiving special education services[86]. Students with special health care needs are at higher risk for suicidal thoughts and attempts than their same aged peers[87]. Non-white students with special health care needs have attempted suicide at a higher rate than either their same-aged non-white peers or their white peers with special health needs[88].

In 2001, Minnesota's county-based, publicly funded mental health system served over 20,000 children.[89] While American Indian, African American, Asian and Latino children make up 16 percent of the state's general child population, they comprise 22.4 percent of children in the publicly funded children's mental health system.[90] Nationally, racial and ethnic minority populations are less likely to have access to available mental health services, to receive needed mental health care and often receive poor quality care[91]. People in rural or remote areas typically have inadequate access to care, limited availability of skilled care providers, lower family incomes, and greater social stigma for seeking mental health treatment than their urban counterparts.

Early identification and intervention for CYSHCN. As of January 1, 2003, there were just over 200,000 infants and toddlers (birth to age 3) who resided in Minnesota. According to

the National Survey of Children with Special Health Care Needs, there are 10,455 children with special health needs under the age of 3 years in Minnesota (6%)[92]. On the December 2002 child count, 3,278 infants and toddlers were being served under Part C Early Intervention[93]. This is less than a third of the children with special health care needs in this age group.

At early childhood pre-school screening, approximately 15% of children demonstrated a need for further evaluation. Five percent were first identified at pre-school screening as needing special education services. Of the nearly 67,000 infants and toddlers eligible for screening through Child & Teen Checkups Program, approximately 24,000 were never screened.[94]

Nationally, substantial variability in surveillance and screening practices occur among pediatricians and family physicians[95]. Regionally in Minnesota, 7% to 31% (average of 9%) of the birth to three population has been screened for developmental delays through the Follow-Along Program[96]. Of the more than 43,000 infants and toddlers enrolled in the Follow-Along Program since its inception in 1991, nearly 31,000 had at least one risk factor linked to poor health and developmental outcomes; 20,000 had at least two risk factors; 12,250 had three or more risk factors linked to poor health and developmental outcomes. In one year, the Follow-along program identified 3,500 areas of potential developmental concern in program participants[97].

In 2001, Minnesota ranked 40th nationally in the percentage of infants and toddlers receiving early intervention services, and ranked 35th nationally in the percentage of infants under the age of one year receiving early intervention services.[98] These rankings provide much room for improvement.

Access to care. Children with special health care needs require access to a variety of specialized services. Failure to receive needed specialty care and services negatively impacts both children and their families. Lack of appropriate equipment for instance, increases the caregiving burden both at home and at school. Lack of needed hearing, vision and therapy services decreases the likelihood that the child will reach his or her full potential and increases the likelihood the child will remain dependent on others into adulthood. Lack of specialty care and mental health services may result in an improper diagnosis and ineffective treatment regimens.

Of those children who needed specific specialty services in Minnesota, 22,698 (14.1%) have reported one or more unmet need for specific health care services[99]. An estimated 6,341 (27.9%) children and youth with special health care needs did not get all needed mental health care. 4,334 (19.1%) didn't get needed specialty physician care. 2,562 (11.3%) didn't get needed therapies. 3,935 (17.3%) didn't get needed vision services. 1,338 (5.9%) didn't get needed

hearing services. 1,320 (5.8%) didn't get needed medical supplies. 1,050 (4.6%) didn't get needed communication devices[100].

While Minnesota (14.1%) compares favorably to the nation as whole (17.7%) in the percentage of children with unmet needs for services, it ranks last in the Upper Midwest[101]. For younger children, an analysis and comparison of unmet needs between states of the Upper Midwest Region revealed that five other states (range of 10.6% to 12.8%) did a better job of meeting all health care needs among children with special health needs birth to five years old than did Minnesota (14.1%). Children in Minnesota were more likely than those in other states in the region (with the exception of Wisconsin) to be insured for all or part of 2001. This suggests that lack of health care coverage is not solely responsible for the presence of unmet needs.[102]

Children in rural areas are less likely to have access to specialty care due to professional shortages. However, rural areas are not the only areas where CSHCN face difficulties in getting access to specialty and other needed services. Lack of connection to a primary provider – a medical home – negatively affects urban CSHCN as well. Children who have a medical home are more likely than those without one to have their need for other services met.[103] The Starfield and Shi literature review notes that increased Medicaid eligibility leads to more coverage and greater presence of a regular source of care. However, black children are more likely to use poor regular sources of care. Thus, simply having insurance coverage may increase disparities between population subgroups unless good sources of primary care are available.[104]

CROSS CUTTING NEEDS

Throughout the Needs Assessment activity, four issues clearly arose as significant concerns that cut across all 3 MCH population groups: health disparities, health care access (including but not limited to insured status), mental health, and pregnancies that are planned. These four issues are also closely aligned with and related to each other.

As noted throughout this needs assessment, while Minnesota enjoys some of the best health status measures within the country overall, significant health disparities exist across the spectrum of maternal and child health issues based on race, ethnicity and culture, as well as poverty/economic status and somewhat less by geographic location. Because of these high status measures (both in health and other social and economic indicators) for some Minnesotans, we have some of the widest health disparity gaps in the country. Disparities are evident in all three MCH population groups. With the changing demographics we are currently experiencing, along with the complexity and intractable nature of some of these issues, it is imperative that we continue to apply targeted efforts to this issue.

The issue of access to responsive quality health care appeared across all population groups as a primary need and indicator for potential health status. As employers appear to be losing their ability or willingness to provide insurance as a standard benefit, the current general economic situation coupled with rapidly rising costs of health care, creates a budget crisis for safety net programs providing health care services. The needs are great; the resources are not. This combination is creating an extremely difficult problem for policymakers and advocates to resolve – creating some exceedingly difficult choices.

The issue of mental health was a key concern for all three populations. The issues of limited professional services, timely comprehensive assessment, costly treatment and inadequate insurance create difficulties for persons of all gender and age groups. The concerns were not only about coverage for, availability of, and access to mental health services, but as important, significant discussion took place around mental wellness and mental health promotion. While we work across the spectrum in the public health sector, we continue to articulate and advocate for our role of primary prevention and support for mental health and wellness for women, pregnant women, infants/children/young adults, and with special interest regarding mental health for children with special health needs.

Support for pregnancies to be planned remains a fundamental MCH issue, and the importance of and concern about this was discussed in all population group meetings. A pregnancy that is planned has the potential for a better outcome and healthier start for the child, so relates to concerns of children with special health needs. When the woman and family are more prepared to raise a child, the child's needs are more likely to be met and the child nurtured and nourished to grow. The mother's health too – both physical and mental – is likely to be better if she has planned for the pregnancy. Given the variety of detrimental outcomes related to unplanned pregnancy, the effects are manifested on all MCH populations and on all Minnesotans.

These four issues cutting across the three MCH populations clearly emphasize their importance for MCH work in Minnesota. The great number of persons affected by each of these issues reinforces the urgency to act and improve the health condition of the state's residents. Based on strong collaborations, rich data, and research-based strategies, MDH is hopeful that Minnesota MCH health can and will be enhanced over the next five years.

NEEDS ASSESSMENT SUMMARY

The 2005 Minnesota MCH Title V Needs Assessment served to determine Minnesota's top ten Title V priorities for the next five years. The final ten priorities reflect the three MCH

populations: (1) pregnant women, mothers and infants, (2) children and adolescents, and (3) children with special health care needs (CSHCN), as noted in the following list:

Pregnant Women, Mothers, and Infants

- Promote planned pregnancies and child spacing
- Eliminate racial and ethnic health disparities in mothers and infants
- Assure early and adequate prenatal care

Children and Adolescents

- Prevent teen pregnancy and sexually transmitted infections
- Prevent child abuse and neglect
- Promote mental health for children and adolescents, including suicide prevention
- Assure that children and adolescents receive comprehensive healthcare, well child care, immunizations, and dental care

Children with Special Health Care Needs

- Improve access to comprehensive mental health screening, evaluation and treatment for CSHSN
- Improve early identification of and intervention for CSHCN
- Improve access to care and needed services for CSHCN

The needs assessment process included four primary phases. In the first phase, MDH staff compiled an initial list of 23 to 29 issues for each of the population groups. These lists were based on both primary and secondary data sources including qualitative and quantitative data and feedback from other MDH staff and community stakeholders. Comprehensive fact sheets were developed for each of these issues. The fact sheets served as a primary source of information for each of the subsequent phases of the process.

For the second phase of the process, each population group conducted a Prioritization Retreat I. For each of the populations, a working group of 25 to 36 persons, who represented a diverse cross-section of professionals and family members with a commitment to the population of interest, were invited to this first retreat. Following individual prioritization, small group work, and large group discussion, ten issues for each population were selected to move on to the third phase of the process.

Prioritization Retreat II the third activity related to the needs assessment, addressed the issues of all three populations. The retreat participants included 23 persons dedicated to one or

more of the MCH populations, and representing Minnesota's population and expertise. Participants completed individual rankings of the issue prior to the retreat, and then participated in small and large group discussions to finalize the selection of five issues per population that were then carried to the fourth and final selection phase.

MDH administration and staff participated in this final step of the needs assessment process that incorporated both individual and large group work. After individually ranking the remaining fifteen priorities, the group first selected three issues for each population group. The participants then considered the remaining six issues and selected one final priority. Despite limiting the priorities to ten, it is MDH's intent to monitor the progress of the final fifteen issues selected by Prioritization Retreat II participants.

This process was developed to enhance stakeholders' and MDH staff's participation in the process and their commitment to addressing these issues. Collaborations occurred within MDH, between various state government offices, and between MDH, family advocates, and other MCH public health professionals. These collaborations maximized input from various public health professionals, parents, and state staff with an investment in the MCH population. The input of all represented parties was a critical and beneficial aspect of the process and the promotion of healthier outcomes related to each of the priority issues.

In addition to the emphasis on collaboration, this needs assessment process capitalized on both quantitative and qualitative data as well as primary and secondary data. All the fact sheets for each of the identified MCH issues relied on data and served as the initial educational tool for retreat participants at all levels. Data justified and reinforced the inclusion of the selected issues in the final ten priorities. These data, together with the expertise and experience of retreat participants resulted in the selection of Minnesota's top ten priorities.

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Minnesota Title V Needs Assessment
Appendices

A Timeline

B Fact Sheets Examples

C Final 10 State Priority Issues

D Complete list of all original Priority Issues

E Participant representation in the Prioritization Retreats

Appendix A

Minnesota's Title V Needs Assessment
2004 – 2005

Title V Needs Assessment Steering Team
- *Program staff from each population area*
- *Management staff*
- *Consultant*
- Selected issues for fact sheets by population
- Developed and mailed fact sheets to population groups
- Participants used a revised Pickett-Hanlon process/scoring: size, seriousness, effectiveness of interventions, and status (community support and resources)
- 1st Retreats by population group

Pregnant Women / Mothers / Infants
- 7/29/04 retreat
- 36 participants
- 24 Fact Sheets

> 10 PRIORITIES

Children and Youth with Special Health Needs
- 8/30/04 retreat
- 28 participants
- 29 Fact Sheets

> 10 PRIORITIES

Children and Adolescents
- 9/9/04 retreat
- 25 participants
- 23 Fact Sheets

2nd Retreat – 10/13/04

- 4 mixed groups of 7-8 participants (all from earlier retreats)
- 30 Fact Sheets (priorities from each population)
- ranked 10 priorities by population group (1-10)
- selected 5 priorities from each population

> 15 PRIORITIES

3rd retreat - 12/1/04
- Internal MDH staff
- 15 remaining priorities

> 10 state priorities

Appendix B

Examples of Fact Sheets

The full set of fact sheets (available in PDF format) can be accessed at:
http://www.health.state.mn.us/cfh/na/factsheets/index.html

Appendix C

Title V - MCH/MCSHN
State Priorities
2005 through 2010

1) Assure that children and adolescents receive comprehensive healthcare, including well-child care, immunizations and dental health care.

2) Prevent teen pregnancy and sexually transmitted infections.

3) Promote mental health for children and adolescents, including suicide prevention.

4) Prevent child abuse and neglect.

5) Improve access to care for CYSHCN: medical home, specialty care and services, oral health, services organized for easy use.

6) Improve access to comprehensive mental health screening, evaluation, and treatment for CYSHCN.

7) Improve early identification of and intervention for CYSHCN birth to three.

8) Eliminate racial and ethnic health disparities impacting mothers and infants.

9) Promote planned pregnancies and child spacing.

10) Assure early and adequate prenatal care

http://www.health.state.mn.us/cfh/na/

Title V Needs Assessment –determining priority issues - from 76 to 10

Child and Adolescent Group

Initial List of Issues/Topics	**1st retreat – select 10 priorities for each group**	**2nd retreat –5 priorities for each group**	**3rd retreat – final 10 priorities**
1. access to health care	1. access to health care	1. access to health care, well child care, immunizations and dental care ***	1. access to health care, well child care, immunizations and dental care
2. access to affordable quality child care	2. access to quality affordable child care	2. access to quality affordable child care	
3. Early identification and intervention			
4. access to quality, comprehensive well-child care	3. access to quality comprehensive well child care and immunizations *	*- included in #1*	
5. school readiness			
6. immunization	*- included in #3*	*- included in #1*	
7. dental health for C&A	4. dental health for C&A	*- included in #1*	
8. teen pregnancy	5. teen pregnancy prevention & STIs *	3. preventing teen pregnancy and STIs *	2. preventing teen pregnancy and STIs
9. sexually transmitted infections	*- included in #5*	*- included in #3*	
10. nutritional intake of C&A	6. nutritional intake and physical activity *		
11. physical activity	*- included in #6*		
12. suicide attempts	7. suicide attempts and children's mental health *	4. promoting mental health and suicide prevention *	3. promoting mental health and suicide prevention
13. substance use: alcohol and drugs	8. substance use: ATOD *		
14. tobacco use	*- included in #8*		
15. child abuse and neglect	9. child abuse and neglect	5. child abuse and neglect	4. child abuse and neglect
16. youth violence	10. youth violence and injury prevention *		
17. injury: intentional & unintentional	*- included in #10*		
18. children's mental health	*- included in #7*	*- included in #4*	
19. healthy community environments			
20. healthy school environments			
21. chronic disease/conditions			
22. acute and contagious disease			
23. healthy youth development			

* - indicates that this priority has had another issue incorporated into it – one issue for each asterisk

Title V Needs Assessment –determining priority issues - from 76 to 10 -Children with Special Health Needs Group

Initial List of Issues/Topics	1st retreat – select 10 priorities for each group	2nd retreat – select 5 priorities for each group	3rd retreat – final 10 priorities
1. access to specialty care and services	1. access to care ***	1. access to care ***	1. access to care ***
2. adequate insurance	2. adequate insurance	2. adequate insurance	
3. all children have a medical home	*- included in #1*	*- included in #1*	
4. behavioral health services in schools	3. success in school ******		
5. childcare	*- included in #6*	*- included in #5*	
6. community-based support for children with behavior disorders			
7. comprehensive mental health services and systems	4. comprehensive mental health services and systems	3. comprehensive mental health services and systems	2. comprehensive mental health services and systems
8. condition specific health information	*- included in #8*		
9. depression			
10. early intervention	5. early identification and intervention	4. early identification and intervention	3. early identification and interventions
11. families receive needed services	6. families receive needed services *	5. families receive needed services *	
12. health promotion	7. health promotion		
13. inclusion in school	*- included in #3*		
14. knowledge of child development			
15. maltreatment			
16. morbidities related to environmental toxins and prenatal alcohol exposure			
17. oral health	*- included in #1*	*included in #1*	
18. parents as decision making partners	8. parents as decision-making partners *		
19. provider capacity & education			
20. school completion	*- included in #3*		
21. school absences	*- included in #3*		
22. services are organized for easy use	*- included in #1*	*included in #1*	
23. social determinants of health and well-being	9. social determinants of health and well-being		
24. social isolation of children and families			
25. special needs are identified early			
26. surveillance & monitoring	10. surveillance and monitoring		
27. transition to adulthood	*- included in #3*		
28. truancy	*- included in #3*		
29. violence at school	*- included in #3*		

* indicates that this priority has had another issue incorporated into it – one issue for each asterisk

Title V Needs Assessment – determining priority issues – from 76 to 10

Pregnant Women, Mothers and Infants Group

Initial List of Issues/Topics	1st retreat –select 10 priorities for each group	2nd retreat – select 5 priorities for each group	3rd retreat – final 10 priorities
1. prevention of abuse and neglect	1. prevention of abuse and neglect		
2. access to primary preventive health care			
3. breastfeeding	2. breastfeeding		
4. dental health for women	*- included in #9*		
5. health disparities in mothers and infants	3. health disparities in mothers and infants	1. health disparities in mothers and infants	1. health disparities in mothers and infants
6. domestic and sexual violence screening	4. domestic and sexual violence screening		
7. increase access to genetic counseling	*included in #9*		
8. home visiting to pregnant and parenting families	5. home visiting to pregnant and parenting families	2. home visiting to pregnant and parenting families	
9. infant deaths	*- included in #6*		
10. infant sleep safety			
11. prevention of infant unintentional injuries			
12. linkage to community resources	*- included in #5*	*- included in #2*	
13. low birth weight and preterm births	6. low birth weight, preterm births, and infant deaths *		
14. male-father involvement in reproductive health and parenting			
15. medical complications during pregnancy	*included in #9*	*- included in #5*	
16. promotion of maternal and infant mental health	7. mental health and substance abuse *	3. mental health and substance use/abuse *	
17. newborn screening			
18. planned pregnancies and child spacing	8. planned pregnancies and child spacing	4. planned pregnancies and child spacing	2. planned pregnancies and child spacing
19. preconception and interconception care			
20. early and adequate prenatal care	9. early and adequate prenatal care ******	5. early and adequate prenatal care *******	3. early and adequate prenatal care
21. screening pregnant women for STIs and HIV	*- included in #9*	*- included in #5*	
22. optimal weight gain in pregnancy	*- included in #9*	*- included in #5*	
23. well baby care and immunizations	10. well-baby care and immunizations		
24. increase screening for assessment, intervention and treatment for substance use	*- included in 7*	*- included in #3*	

* indicates that this priority has had another issue incorporated into it – one issue for each asterisk

Insert MDH LOGO

Building Data Capacity

Family Health Project Report 2003-2004

Prepared by Janice Jones, February 2005

Improved data capacity to move information to action for the health of Minnesota's families

“Where is the wisdom we have lost in knowledge?

Where is the knowledge we have lost in information?”

TS Elliot
The Rock

Chapter
1

Background

The Family Health Division's purpose is to protect, maintain and improve the health of women, children, youth, families and vulnerable populations and to build the capacity of individuals and organizations to accomplish this mission. While looking to accomplish this purpose in an evolving political and economic environment the division identified a critical need -- using quality data to better inform public policy and programmatic decisions and educate key audiences about the benefits of the division's programs. This document will provide the background, overview of actions taken to address the need, and proposed recommendations for continuing to build the Division's data capacity.

The Institute of Medicine (IOM), a national health advisory institute chartered by the National Academy of Sciences, issued a statement on the role of government in public health in 1988. They proposed government's role to be three-pronged:

1. **to develop policy that supports the health of populations,**

2. **to assure access to health care and the quality of that care, and**

3. **to assess the health status of the population.**

An understanding of the health status of a population is necessary to plan, implement, and evaluate public health programs that control and prevent adverse health events. The U.S. Public Health Service responded to the need for accurate and timely public health assessment data in Healthy People 2000 National Health Promotion and Disease Prevention Objectives by recommending that public health entities regularly and systematically track population health objectives. The U.S. Department of Health and Human Services/Maternal and Child Health Bureau (DHHS/MCHB) requires reporting on performance measures in the application for MCH Title V block grant monies. State public health agencies are increasingly being asked to measure and assess population health status.

Minnesota programs that serve the maternal and child health (MCH) populations are located primarily in the Family Health Division of the Minnesota Department of Health (MDH). Those programs include WIC, Maternal and Child Health, and Minnesota Children with Special Health Needs (MCSHN). Like MCH programs in many states, Minnesota is challenged to meet the multiple program and policy demands in an ever-changing social, economic and political environment. These challenges have resulted in the division taking a look at how they did their work as well as what they did. One observation that continued to be made through this process was the overall need to better understand the health status of the populations served and use that information to best plan, implement, and evaluate public maternal and child health (MCH) programs. It was in this spirit that the MDH Family Health Division sought to assess and enhance its capacity to know, understand, and utilize data/information on the health status of the MCH population.

In December 2002, the Family Health management team adopted a statement of Purpose, Core Values and Operating Principles. (Table 1) These directly relate to the division critical need to build capacity in use of data specifically in the core value of evidence or science based information to guide programs and in the operating principle of accountability, evaluating programs and activities and demonstrating responsibility for the desired outcomes.

Table 1

Purpose:
➢ Protect, maintain, and improve the health of women, children, youth, families and vulnerable populations ➢ Build the Capacity of individuals and organizations to accomplish this mission.
Core Values:
➢ Evidence or science based information is used to guide programs ➢ Respect for the knowledge and diversity of others ➢ Compassion: taking a nurturing approach
Operating Principles:
➢ Accountability: evaluating programs and activities and demonstrating responsibility for the desired outcomes ➢ Advocacy: consistently standing up for public health principles ➢ Holistic approach: supporting approaches that focus on the whole person and family and that take an asset-based approach ➢ Inclusiveness: ensuring active participation in the decision-making process by those affected by the decision ➢ Partnering: working with others to enhance effectiveness and leverage resources

With a purpose to protect and improve the health status of women, children and families the goal was to effectively using data to build knowledge and identify best practices that support program activities and policy initiatives. The strategy to achieve this goal was to develop an infrastructure that supports transforming data into knowledge and to direct policy, program evaluation, and program planning. To accomplish this the division needed an action plan that would strategically move it to enhance and build the use of data. A key outcome this action plan was for the division to become a primary and reliable resource for accurate data relative to MCH populations and a staff that is aware of processes to use when providing data, processes to use to analyze data, and have the skills necessary to work with data as their job requires.

Chapter
2

Planning – Phase 1 - Assessment

For Family Health (FH) to move to a position of being the state's primary source of information on the health status of MCH populations the division needed to develop a plan. With funding from the Association of Maternal and Child Health Programs (AMCHP) the division conducted an assessment of its data capacity. A planning team of division managers, supervisors, and key program staff were selected to provide direction to this assessment activity. Full support and commitment from the FH management team were critical to the success of this project and ongoing integration of data thinking into the division's activities. Management leadership was key to ensuring that changes in the organization were implemented to support this type of activity.

On recommendation from AMCHP and national MCH leaders, the planning team chose to utilize a tool entitled CAST 5 (**C**apacity **A**ssessment for **S**tate **T**itle **V).** This CAST 5 tool was built on the foundation of the IOM- The Future of Public Health 1989 and structured to correspond to the concepts and domains embedded in national work which outline broad standards and measures for state and local public health activities, capacities and competencies for example the work of CDC, ASTHO, and NACCHO on tools related to the National Public Health Performance Standards Program. The Cast 5 tools were developed under cooperate agreement with the Maternal and Child Health Bureau, Health Resources and Services Administration, U.S. Department of Health and Human Services by AMCHP and Johns Hopkins University Women's and Children's Health Policy Center.

Cast 5 includes a set of assessment and planning tools which can be used to examine organizational capacity to perform the core public health functions. The tool is framed around the Ten Essential Services for Public Health MCH Programs. (appendix) The tool can be used to assess state performance through a series of indicators, identify resource needs, analyze strengths, weakness, opportunities and needs (SWON), and develop an action plan utilizing the information. More information on this tool can be found at http://www.amchp.org/policy/data-cast5.htm.

In June of 2003 the planning team met to review the Cast 5 tool, and to respond to the Core Questions utilized as a basis in the Cast 5 assessment process. (Appendix) In July 2003, a two day assessment process was held with participation from staff of the division, key partners in other MDH divisions, and partners at the School of Public Health at the University of Minnesota. (Appendix) Consultants, Holly Grason, MA, Johns Hopkins University and Karen VanLangdehem, formerly with AMCHP, facilitated this activity.

The group completed a broad assessment of the overall capacity of the division to meet each of the ten essential services. The group then focused on those essential services for MCH that had a strong data component which included essential services 1, 2, 9 and 10. The division also chose to look at essential service 5 relating to leadership.

Using process Indicators the group identified the current and desired level of performance for the essential services as it related to data/information systems resources capacity, a SWON analysis of Capacity Needs (what do we need to have to achieve the desired level) and began development of the Action Plan.

Through use of the tools the group identified four priority needs that needed to be addressed in the action plan. Those priority needs, which will be addressed further in the next section were

- Data and Analytic Skills
- Adequate Data Infrastructure
- Communication and Data Translation

- Statutory Authority and Funding for Building Data Capacity.

The group also helped identify some of the key next steps the division should take to move forward on accomplishing it's goal. Those next steps to creating a detailed action plan included:

- Identify, implement and operationalize a permanent Division-level data work group or team
- Identify a lead staff person responsible for coordination of data-related activities
- Inventory the Division's current capacity in data and communication skills; training needs; hardware and software; databases/data sets, needs for linkages/integration of data sets;
- Assess resources to meet identified data needs and consider such options to meet those needs.
- Further identify internal and external resources (e.g., University of Minnesota, community groups) and promote collaboration within and external to the Division to maximize these resources.
- Produce one targeted communication product (within one year) that would require working across the Division and externally-Evaluate this effort and incorporate lessons learned into future communication products and data capacity building efforts.
- Examine the Division's priority health issues across the various lists and identify core priorities
- Capitalize on the local public health block grant legislation and its implementation to promote, encourage and/or require a focus on data and assessment.

More details on the assessment activities are included in the report *Minnesota Capacity Assessment for State Title V (Cast 5) Final Report*, September 2003, prepared by Holly Grason and Karen Vanlandeghem.

Chapter
3

Planning – Phase 2 - Action Plans

With the results of the Cast 5 Assessment in hand the division began the next phase of the process – creating action plans. In September 2003, a steering team was formed which consisted of key division managers and supervisors. This group's responsibility was to provide guidance for this next phase. Division management also selected a project lead to facilitate the work on creating the action plan. The steering team informally identified outcomes that they would like to see in the coming year to show progress on achieving the overall goal of enhanced use of data. Some the outcomes identified included:

- MCH Epidemiologist on staff
- Understanding of other support and professional staff needed to support an Epi Team
- Routinely using data for policy decision
- Awareness of sources of data for decisions or if no data a plan in place to get the data
- Plan underway to increase staff capacity (assessed and planned)
- Systems for reviewing the data within FH
- Arrangements with other state agencies for data relative to FH
- Workshops or trainings for all staff re: data
- 1-2 Priorities identified
- Data work group established
- Linkages/crossover/integration of data sets
- Division monitoring/assuring FH interests within data sets
- Plan – with ongoing priorities
- Inventory of existing data

This steering team reviewed and further refined the four capacity need areas and articulated a specific goal for each capacity need as shown in Table 2. In addition, the steering team refined the action steps related to each capacity. (appendix XX) Then a team of Family Health Staff was appointed to each Capacity Need as shown in Table 3. The teams under direction of the Project Lead were charged with further defining components of the action plan and developing recommendations for management.

Table 2

Capacity A
Leadership, Statutory Authority and Budgetary Control
Goal is a Family Health organizational structure, statutory authority, and funding that supports activities related to improved data capacity.
Capacity B
Data and Analytic Skills
Goal is management and analysis of Family Health data that includes identifying data sources, identifying gaps in data and follows division, department and other relevant guidelines/standards for collecting or analyzing data.
Capacity C
Adequate Data Infrastructure
Goal is division acquisition and maintenance of the necessary hardware, software, and technical skills components of our infrastructure to support data activities.
Capacity D
Communication and Data Translation
Goal is education of the public, influence policy and achievement of improved health outcomes through translation of new and existing data, and communication of data and data based information to targeted audiences.

Table 3

Capacity Need A Action Team:	**Capacity Need B Action Team:**	**Capacity Need C: Action Team:**	**Capacity Need D: Action Team:**
Barb Dalbec - MCHSN Cara McNulty -DO Carol Rowe - SNP/WIC Cheryl Smoot- ISCDA Nancy Vanderburg– MCH	Barb Kizzee – MCH Junie Svenson – MCH Maggie Donohue- SNP/WIC Marilyn Kennedy- DO Office	Chad Kielas- ISCDA Cindy Le – MCSHN Linda Dorsey- DO Melissa Hughes- SNP/WIC Yaoli Li – MCH Don Brabeck –Shared Services	Cami Lundberg- MCHSN Emari Lavine – MCH Esther Maki – MCH Maria Rogness- ISCDA Sarah Malberg- SNP/WIC
Project Lead: Janice Jones, Director's Office			

Kickoff meetings were held with each of the teams in March of 2004, outlining the charge and expected outcomes of the team's activity. The teams were provided information on the relationship of this project to other data related work with in the division such as the MCH Needs Assessment and the work of the MCH Advisory Task Force Workgroup addressing the use of data to monitor the impact of program changes on MCH populations.

While division organizational changes in April 2004 and again in August 2004 resulted in the work of two teams being put on hold, two of the teams began to move forward on their tasks. In addition, the project lead was assigned to a statewide project on a part-time basis from September 2004 through January 2005. Despite the chaotic year, significant progress was made in some areas.

Capacity Need A: Leadership, Statutory Authority and Budgetary Control. The team met once early in the process. This team was placed on hold until such time as the project could be reviewed with appropriate management in the division.

Capacity Need B: Data and Analytic Skills Team. This group met a limited number of times. However, the research scientist and project lead facilitated a data skills /interest survey and utilized that information in arranging and hosting several data skills training events for staff. Those trainings included:

1. Health Statistics Overview by the Minnesota Center for Health Statistics
2. Public Health Data: Our Silent Partner, Introduction
    a. Module 1- Leading Causes of Death
    b. Module 2 – Teen Pregnancy
3. How to use the Mn Vital Statistics Interactive Query
4. Public Health Surveillance and PRAMS overview by Dr. Wendy Hellerstedt, UofM

The team provided input to the Research Scientist on additional training needs. With this information a reapplication to AMCHP for continued funding for data training was submitted and approved. The planning for additional data skills training is in progress.

This team supported the division's successful efforts to create and hire a lead MCH epidemiologist. This position will serve as a key leader in ongoing activities relating to data within the division.
Capacity Need C: Adequate Data Infrastructure Team. This team held several information sessions on various Family Health computer systems including the WIC system, MCHSN, Newborn Screening, and E-chronicle. They also received an overview of division Information Technology (IT) services and an overview of agency architecture planning and services from staff of the MDH's Information Systems and Technology Management Office.

The group began work creating a technical skills survey tool, compiling a listing of IT resources (Printers, plotters, etc.) available to division staff; and building of division level processes for maintaining inventories. The team has identified and forwarded key initial recommendations regarding data infrastructure to division management. (appendix)

Capacity Need D: Communication and Data Translation Team. This team met only once early in the process. In the first wave of Division organization changed a new section was created which had focus on Communication. With input from Division management it was determined that planning around this capacity should be done in coordination with the new section's broader Communications assessment work.

Chapter
4

Next Steps –Outcomes and Recommendations

While much has been achieved towards our goal to date the division should continue to build on the foundation it has begun with the Building Data Capacity Project and the assessment work done using CAST-5. The following are some key outcomes and recommendations in each of the four capacity need areas.

First and foremost it is imperative that the new division leadership be made familiar with the CAST-5-Building Data Capacity Project Goals. The new division entitled Family and Community Health was created in August of 2004 and includes both Family Health as well as Community Health. Division management should identify the priority and ongoing direction for the work of this project. With leadership support to continue, a staff person within the division should be given overall responsibility for ongoing leadership of this project. In addition, membership of the 4 capacity teams should be reviewed and adjusted as needed to reflect the new combined division structure. Leadership should also establish a steering team that can identify key outcomes for this work in the coming year.

In addition to the August 2004 division change, a new section entitled (insert correct name) ISCDA was created in Family Health in April of 2004. This section houses a newly created Data/Epi Unit which is composed of a senior level epidemiologist and 2 research scientists. This unit is direct result of work of the Building Data Capacity Project and will be key to addressing many of the items that had been listed under Capacity Need B: Data and Analytic Skills. This new unit is creating several working groups including a "Data Users Group", a database workgroup and an MSH Databook Group. They are reviewing and formalizing procedures and processes relating to grants administration, addressing roles and responsibilities related to MCH Data such as PRAMs and will serve as a bridge maker on data areas as they relate to MCH data. The Data/Epi unit will assume the responsibilities around data skills training and are already planned a series of trainings for Winter/Spring of 2005. Additional meetings of the Capacity Need B Team may be needed to discuss any remaining action steps, to identify gaps and develop recommendations to address those as appropriate under the new division structure.

The Recommendations submitted by the Capacity Need C Team (appendix) begin to address some of the technical infrastructure needs for the division to support data capacity. The work should continue and include a team of appropriate staff from across the new division. The team should be charged with serving as a resource for planning on architecture, technical skills, IT planning to ensure there is a strong information technology infrastructure in place to support the division's work.

Capacity Need D: Communications and Data Translation. This area also ties closely to activities of the ISCDA Section in both the work of the Data/Epi Unit and the Communications Unit. The development of division level data work groups and division procedures relative to data address come of the areas of this Capacity Need as it relates to translation of data. A Division Communications Team is in place and developing a plan which includes several of the communications components of this capacity area including identifying capacity, identifying audiences, and establishing systems to track communications. Additional meetings of this Capacity Need Team may be needed to identify gaps and develop recommendations to address those as appropriate under the new division structure.

While the work to date has focused on the assessing and planning around the data capacity needs, the division should continue to build on the foundational work begun with CAST 5 as it relates to other capacities as well both within the agency and with the local public health partners throughout the state. As referenced earlier in this report, the group conducted a broad assessment of the division's capacity across all 10 Essential Services. This included looking at capacity relating to organizational relationships, staff competencies and skills, and other structural resources that support performance of core functions. Utilizing

that assessment as a base and with the flexibility of use of the Cast 5 tools ongoing assessment, the division should pursue development of action plans for key areas. Further information can be found in the Ongoing CAST 5 Recommendations memo of Feb 2005" in the (appendix).

Chapter
5

Summary

The needs of Minnesota's MCH populations as well as the overall state's socio-economic and political climate are becoming more and more complex. To ensure that it achieves its vision of protecting, maintaining and improving the health of those families the division's capacity building work must continue. It is even more critical now as the national and state leaders are seeking to promote and implement more robust electronic methods of gathering and storing health related data. Continued capacity building work will be an evolutionary process and will require a commitment both from staff and from management. Minnesota has been recognized for it's work in utilizing the CAST 5 process as well as is seen as a leader in the work around electronic health information. Building on the foundation that was begun in 2003, Minnesota can achieve *Improved data capacity to move information to action for the health of Minnesota's families*

Appendices

1. **Have you established a Vision/Goals for the MCH Population?**

   - **Vision**: Population based focus on healthy moms, dads, babies, children and families
   - **Mission**: Promote and improve the health of MCH Population, promote and improve women's health, periconceptional health
   - **Goals**: Population-based focus, improved nutrition (WIC), improved systems that impact/serve the MCH population, and support policies that improve and promote the health of MCH population

2. **Given the Title V needs Assessment, have you identified the Priority health issues and desired population health outcomes?**

Priority health issues are outlined in multiple areas:

- Section priorities
- Healthy Minnesotans
- Performance Indicators/Outcomes
- WIC Specific Health Outcomes
- Title V MCH Needs Assessment
- Title V MCH Performance Measures
- Local Public Health Grant Outcomes (e.g., low birth weight)

3. **Have you identified the political, economic and organizational environments for addressing the priority health issues?**

   - Less state and local government capacity
   - Shifting towards services provided outside of government
   - Economic downturn resulting in limited public and private funds
   - Conservative and hierarchical organizational environment
   - Advocacy organizations are more vocal and aggressive
   - Employment and employer economic experiences
   - The Division/Department's limited span of control influences most of what happens to and for the MCH population.
   - Lack of understanding among the general public about what public health means to them and their community
   - Also see MCH 2003 Environmental Scan

4. **What are the macro-level strategic directions for the Title V program in light of the responses to questions 1,2, and 3?**

   - Implement local public health block grant
   - Build and strengthen data capacity
   - Prioritize key program areas
   - Reduce work in non-priority areas

- Maximize efficiency and capitalize on strengths
- Create and strengthen partnerships across division and agency

5. **Have you identified the programmatic organization strategies you will use to implement the strategic directions of #4 and to achieve the desired population outcomes identified in #2?**

    - Broaden Family Health Division perspective across all sections
    - Reinforce common activities to maximize outcomes
    - Use informed data to drive policy and program at state and local levels
    - Addressing health disparities is a major strategic opportunity for the Division. Disparities exist across many areas (e.g., economic, gender, race/ethnicity, rural/urban)

10 Essential Public Health Services to Promote Maternal and Child Health in America

1. Assess and monitor maternal and child health status to identify and address problems.

2. Diagnose and investigate health problems and health hazards affecting women, children, and youth.

3. Inform and educate the public and families about maternal and child health issues.

4. Mobilize community partnerships between policymakers, health care providers, families, the general public, and others to identify and solve maternal and child health problems.

5. Provide leadership for priority setting, planning, and policy development to support community efforts to assure the health of women, children, youth and their families.

6. Promote and enforce legal requirements that protect the health and safety of women, children and youth, and ensure public accountability for their well-being.

7. Link women, children and youth to health and other community and family services, and assure access to comprehensive, quality systems of care.

8. Assure the capacity and competency of the public health and personal health workforce to effectively and efficiently address maternal and child health needs.

9. Evaluate the effectiveness, accessibility, and quality of personal health and population-based maternal and child health services.

10. Support research and demonstrations to gain new insights and innovative solutions to maternal and child health-related problems.

Source: Grason H, Guyer B, 1995. *Public MCH Program Functions Framework: Essential Public Health Services to Promote Maternal and Child Health in America.* Baltimore, MD: The Women's and Children's Health Policy Center, The Johns Hopkins University. *www.jhsph.edu/WCHPC/publications/pubmchfx.pdf*

CAST-5©

CAST-5
July 2003 -Retreat Attendees:

Jan Jernell
Family Health Division Director

Janet Olstad
Family Health Assistant Division Director

Gretchen Griffin
Family Health Youth Risk Endowments Manager

Cara McNulty
Family Health
Coordinated School Health Program Manager

Candy Kragthorpe
Family Health Mental Health Program Coordinator

Michelle Strangis
Family Health MCH Advisory Task Force

Betsy Clarke (WILL NOT BE ATTENDING)
Family Health- WIC
Program Manager

Patricia Faulkner
Family Health- WIC
Nutrition Unit Supervisor

Carol Rowe
Family Health -WIC
Operations Unit Supervisor

Rick Chiat
Family Health -WIC
Vendor Unit Supervisor

Mary B. Johnson
Family Health -WIC
Breast Feeding Consultant

Melissa Jonas
Family Health -WIC
IT Specialist

Maggie Donohue
Family Health -WIC
Nutrition Consultant

Marilyn Kennedy
Family Health
Research Scientist

Janel Harris
Family Health
Research Scientist

Penny Hatcher
Family Health- MCH
Child and Teen Checkup Supervisor

Nancy Blume
Family Health -MCH Section
Child and Adolescent Health Policy Supervisor

Jill Briggs
Family Health -MCH Section
Reproductive Health Team Leader

Cheryl Smoot
Family Health-MCH
School Health

Maria Rogness
Family Health -MCH Section
Communications Coordinator

Dana Brown
Family Health-MCH
Genetics

Nicole Brown
Family Health-MCH
Child and Teen Check Up
PH Nurse

Sarah Nafstad
Family Health-MCH
Adolescent Health Coordinator

Elisabeth Atherly
Family Health-MCH
FAS Health Educator

Cheryl Fogarty
Family Health-MCH
Infant Mortality Public Health Nurse

Yaoli Li
Family Healty-MCH
Child and Teen Check up- Hearing Screening
Program Specialist

Pamela Hayes
Family Health-MCH
Family Planning Policy Coordinator

John Hurley
Family Health-MSCHN
Section Manager

Sarah Thorson
Family Health- MSCHN
Supervisor

Sherry Tucker
Family Health-MCSHN
District consultant

Nadine Taylor
Family Health-MSCHN
District consultant

Joan Lee
Family Health-MCSHN
District Consultant

Lola Jahnke
Family Health-MCSHN
Follow-Along Program & III-P Coordinator

Cindy Le
Family Health-MSCHN
Information and Data Coordinator

Barb Dalbec
Family Health-MSCHN
Part C Coordinator

Cheryl Girraoud
Family Health-MSCHN
Information and Assistance Specialist

Nancy Vanderburg
Family Health-MSCHN
Newborn Screening Project Coordinator

Julie Ring
Community Health
Office of Public Health Practice
Program Supervisor

Dan Symonik
Environmental Health
Environmental Impacts Analysis Unit
Supervisor -Birth Defects Registry

David Stroud
Community Health
Mn Center for Health Statistics
Research Scientist Supervisor

Martin LaVenture
Health Protection Bureau
Public Health Informatics Advisor and Manager

Mark Kinde
Health Promotion & Chronic Disease
Injury and Violence Prevention Unit
Epidemiologist Supervisor

Janice Jones
Family Health - MCH
FAS PROGRAM SUPERVISOR

Action Tables-Building Data Capacity 2003-2004

Capacity Need A: Leadership, statutory authority and budgetary support.
GOAL: A Family Health organizational structure, statutory authority and funding that support activities related to improved data capacity.

ACTION Step	Current Activity	Completion Date	Who
Set, define and articulate the public health goals for the Family Health Division			
Develop a process that answers: • What are the data analysis questions relative to division goals? • What are the data sets we need to measure those goals • What are the skills needed to collect analyze and communicate • How do we do the needs assessment for MCSHN? • How/where do we find special needs kids?			
Implement, evaluate, maintain and institutionalize an interactive process that answers: "Do we have the capacity to do?" and fosters: "not competing but collaborating."			
Identify leadership and responsibilities for data capacity action plan activities • Overall (Division director). • Technical • Managerial (Mgr/Sup group) • Program staff • Lead staff person responsible for coordinating activities.			
Promote using staff skills in new ways, rethinking how people work together on projects based on the skills they have rather than defined job requirements			
Identify and ensure funding to address for building data capacity. • Initiate better grant writing and coordinated grant writing process. • Encourage staff to seek funding through grants. • Work with the University of Minnesota to partner on grant writing.			
Identify statutory authority to build data capacity through new and expanded projects. • Build coalitions with community, professional and advocacy organizations, and provide support to advance the Division's data capacity projects • Implement, evaluate, maintain and institutionalize an interactive process that answers: "Do we have the capacity to do?" and fosters: "not competing but collaborating."			
Promote increase data sharing within MDH. • Top Family Health management leadership and commitment needed to support: • Increase data sharing among individual level data links: Linking birth records—newborn, hearing, metabolic, lead, immunizations (birth data integration group)—WIC, Medicaid, PRAMS, birth certificates. (See Capacity B) Build internal and external coalitions with community and professional organizations to advance our data capacity projects Use the Division's existing resources as a demonstration and marketing tool			

ACTION Step	Current Activity	Completion Date	Who
(i.e., show off our good work now and then) and be more proactive and strategic about sharing of information.			
Implement and operationalize a "data analysis team" Identify roles of a permanent Division-level data analysis team; define purpose and scope of this group. (See also Capacity B)			
Designate staff time for data analysis in each section and shift resources as needed.			
Implement Data Capacity improvement steps in hiring, position descriptions, training, contracts and grants.			
Facilitate collaboration between FH and MDH programs that support infrastructure at local CH agencies to (e.g. reliable Internet access, software installations, hardware needs). (Also see Capacity C)			

Capacity Need B-Data and Analytic Skills

Goal: Management and analysis of family health data that includes identifying of data sources, identifying gaps in data and follows division, department and other relevant guidelines/standards for collecting or analyzing data.

ACTION STEP	Current activity	COMPLETION DATE	WHO
Area: Data Analysis			
Develop mechanism to conduct ongoing inventory of staff skills in data collection, use and analysis; regularly review and identify needs and make recommendations to division leadership.			
Identify the current capacity in each section and identify what capacity is needed			
Review public health competencies in use of information and use of information technology and make recommendations for staff development			
Implement and operationalize a "data analysis team" • Identify roles of a permanent Division-level data analysis team; define purpose and scope of this group. (*Also referenced in Cap A)*			
Require or recommend baseline training needs for Division staff in data and analysis. • Establish staff training on three competencies: a. Use of information for public health practice. b. Use of information technology to increase individual effectiveness. c. Development, deployment and maintenance of information systems			
Designate staff time for data analysis in each section and shift resources as needed.			
Implement Data Capacity improvement steps in hiring, training, contracts and grants			
Area: Data Collection and Management			
Develop mechanism to conduct ongoing inventory of data including a regularly review and identification of data needs and make recommendations to division leadership.			
Update Inventories of data bases, data sets, data sources Within Division, Within MDH, External, identify gaps in data, barriers to access of data and potential proxy data.			
Identify methods used in the division to collect data 1. Identify who is doing data collection 2. How are they collecting data the data			
Review grant requirements in terms of data collection			
Establish data practices and security that supports an environment for information sharing while maintaining appropriate security of the data. Identify existing policies, resources and guides. • Inventory data sets and with whom they are shared. • Identify applicable Data Privacy Classification and records management guidelines *(See also Capacity A)*			
Evaluate Data strengths and opportunities as result of the			

ACTION STEP	Current activity	COMPLETION DATE	WHO
inventories 1. How well are we meeting grant requirements 2. How to address data needs based on inventories 3. What indicators do we need			
Make Recommendations to division leadership based on needs			
DATA SHARING (also see Cap A)			
Increase data sharing among individual level data links: • Linking birth records—newborn, hearing, metabolic, lead, immunizations (birth data integration group)—WIC, Medicaid, PRAMS, birth certificates. • Analyze other activity, identify successful strategies based on other states experiences			
Identify non-individual specific data sources: a. Identify what we need to access. b. Determine methods to access (i.e., How? and Who?) c. Learn from other states (e.g., IL, MO) d. Identify sources of data.			
Establish training and education around *de-duplication.* —educate one another about who is contacting who for data. (i.e. more than one program area contacting DHS for similar info)			

Capacity Need C – Adequate Data Infrastructure

Goal: Division acquisition and maintenance of the necessary hardware, software, and technical skills components of our infrastructure to support data activities.

. **ACTION STEP**	**Current Activities**	**COMPLETION DATE**	**WHO**
Develop mechanism to regularly review technical infrastructure needs, identification of gaps and recommendations to division leadership.			
Review and update the infrastructure components of FH Data inventory to include: ▪ Hardware/software ▪ Architecture of MDH and external databases ▪ National, CDC, state and agency standards and specifications to facilitate data sharing and linkage. ▪ Staff technical skills related to infrastructure ▪ Available technical skill training and costs. ▪ Adopt CDC standard nomenclature ▪ Web-enabled applications			
Assess, evaluate and make recommendations to fill the gaps (hard and soft) identified in the inventory. For example: ▪ GIS capability ▪ Survey analysis software ▪ Purchase GIS software ▪ Data quality ▪ Data Security ▪ Hardware ▪ Administrative Software ▪ Place text and survey data on web ▪ Geocode the MCSHN data ▪ Implement the web-enabled application for WIC. ▪ Skills training for staff ▪ Staffing needs			
Write a Division plan for data architecture (i.e., information, technology, domain and control architecture)			
Find, commit and/or redistribute adequate resources in order to do the work including sharing staff and hardware/software across sections and divisions.			
Review activities/roles of existing division web advisory group			
Development, deployment and maintenance of information systems			
Facilitate collaboration between FH and MDH programs that support infrastructure at local CH agencies to (e.g. reliable Internet access, software installations, hardware needs). *(Also see Cap A)*			

Capacity Need D: Communication and Data Translation

GOAL: Education of the public, influence policy and achievement of improved health outcomes through translation of new and existing data, and communication of data and data-based information to targeted audiences.

ACTION STEP	Current Activity	COMPLETION DATE	WHO
Establish Division level work group focusing on data translation and needs (e.g., share information, expertise, etc.).			
Make intentional communications about data a priority from the Division level.			
Assess current administration policies and goals related to communication about data (i.e., What is the political climate?).			
Identify the current capacity in each section regarding use of communications and social marketing techniques for public health.			
Involve MDH Communications office in development of division guidelines.			
Identify various audiences for Division communications.			
Establish a system for tracking Family Health Division communications.			
Develop Division-level standards regarding communications about data and the translation of health related data. (i.e., Who can say what to whom about what data such as abortion statistics? and What is the common model/format for communications?).			
Train program staff in basic communication and social marketing skills.			
Identify 1-3 priority communication projects for the Division and complete one by August 1, 2004 (e.g., MCH block grant performance measures).			

February 2005

Recommendations from Building Data Capacity Team C

<u>Capacity Need:</u> Adequate Data Infrastructure

<u>Goal-</u> Division acquisition and maintenance of the necessary hardware, software and technical skills components of our infrastructure to support data activities.

Building Data Capacity Team C would like to present the following recommendations to the division management in support of the above stated need and goal. Implementing these recommendations would provide the foundation for the division to enhance its capacity to effectively use data to evaluate and measure the status of public health in Minnesota. These recommendations are to:

1. Build an environment that promotes information sharing and strategic planning on information technology;
2. Maintain an accurate and up-to-date inventory of the division's hardware, software and staff technology skills; and
3. Build staff competencies in use of technology.

The following are more specific details on each recommendation.

1. Build an environment that promotes information sharing and strategic planning on information technology

   Establish and support a formal mechanism for information sharing and strategic planning on IT issues within the division thereby creating an environment where appropriate staff are kept current on IT infrastructure strategies, trends, issues and actively promotes the use of technology solutions and strategic planning to enhance the division's effectiveness and improve efficiency. Some components of this recommendation include:

   a) Identify and appoint staff to serve as the Division IT Team.
      - This team should include shared IT staff (Don Brabeck/Luong La) as well as staff from each section who have IT responsibilities, Section IT contacts, and other staff who have key responsibilities that are related to the use of technology.

   b) Select a chair and vice chair for the IT Team to serve a 1-year term.
      - The chair is responsible for scheduling meetings, planning agendas, drafting resolutions, and promoting an environment where IT staff are comfortable contributing to the discussions.
      - The vice chair assists the chair as needed and is responsible for maintaining notes of meetings and ensuring they are posted to the C&FH internal web site.
      - Team members will be assigned responsibility to report on an area as listed below.
      - Other division staff may attend meetings as appropriate and bring issues or proposals to the team on potential IT support or purchasing needs.

   c) Hold regular (monthly) meetings of this team which would include updates as well as planning and recommendations relating to use and/or division needs in the following areas:
      - Web Application Activities and Support
      - Network Activities and Support
      - Desktop Support (common issues- new tips/tricks)
      - Peripherals Update (printers, Palm Pilots, Proxima, etc.)
      - Database Administration Activities
      - Application Programming Activities
      - MDH DISAT Groups reports (DISC, Web, Security, etc.)
      - Updates on New Technology
      - Other issues….

d) Create and support a process whereby IT staff are included in program planning and/or grant planning activities where there is a planned or potential technology component or need. IT staff may be included in division and section meetings to stay current on program activities. IT staff will be asked to provide input into that planning process including needs relating to staff as well as hardware and software needs. IT staff can serve as a resource to determine other similar technology needs within the agency or across the enterprise and support cross program sharing of hardware, software and staff.

e) Develop and prepare an annual plan for division management on purchasing, replacing, and upgrading of hardware and software needs within the division. This will build upon the process currently being used by Don Brabeck.

f) Develop a list of "core" IT competencies (IT skills needed by staff to do their jobs) and recommend a tool that staff can use to assess their competency.

2. Maintain an accurate and up-to-date inventory of the division's hardware, software and staff technology skills

a) Develop and implement an inventory process. This process should include requirements for keeping inventory current as well as identifying individuals responsible for updating the inventory.
b) Inventory process should be automated and readily accessible to appropriate division staff allowing access to update, change, and review the inventory (web-application on C&FH intranet).

c) Utilize inventory in planning for training, technology purchasing, and to promote the use of staff technical skills across the division.

3. Build staff competencies in use of technology

Establish and support a process to ensure program staff (users) and staff with IT responsibilities have "technical skills training" needed for their work including basic computing skills to specialized skills such as programming, GIS, etc.

a) Regularly assess technical competency of staff.
b) Supervisors/Managers are accountable for encouraging and supporting (including paying for) staff attendance at appropriate technical training classes.
c) IT training needs are identified in employee's individual development plans.

February 4, 2005

To: FH Managers,
Mary Sheehan, Division Director
Wayne Carlson & Janet Olstad, Assistant Division Directors

From: Janice Jones, Project Consultant Sr.

RE: Family Health Capacity Assessment -Areas of Need

In 2003 the Family Health Davison chose to assess it's capacity to perform the core functions and essential services for public MCH in a time of socio-economic and political change. The division uses a tool entitled CAST-5. Potential uses for the tool, as identified by state MCH leaders, include guidance in conceptualizing the public MCH mission in a changing health care environment and transitioning to core public health functions; as part of a strategic planning process; and as an adjunct to continuous quality improvement activities. More general information on the use of these assessment approach is listed on page 2 of the attached Background Statement on Enhance Data Capacity.

As a part of our Cast 5 work in 2003 the planning team responded to 5 Core Questions to help determine our readiness to move forward assessing division capacity. Those Core questions were:

1. **Have you established a Vision/Goals for the MCH Population?**
2. **Given the Title V needs Assessment, have you identified the Priority health issues and desired population health outcomes?**
3. **Have you identified the political, economic and organizational environments for addressing the priority health issues?**
4. **What are the macro-level strategic directions for the Title V program in light of the responses to questions 1,2, and 3?**
5. **Have you identified the programmatic organization strategies you will use to implement the strategic directions of #4 and to achieve the desired population outcomes identified in #2?**

While the primary focus of this assessment was in area of data capacity other needs were raised and captured through the process. In response to the Core Questions the following issues were identified.

1. Vision and goals for the MCH population
- Vision and mission is not well-known or articulated and needs refreshing
- There is a need for educating and marketing the Division's "product" and seeking investment in the mission and work of the Division (especially for children with special health care needs).

2. Priority health issues and desired population outcomes
- Program priorities do not always match performance measures and outcomes
- Need for communicating goals and priorities more broadly
- Youth/adolescents seem invisible in the listings
- Need for examining the Division's priority health issues across the various lists
- How does the Division address the impact of poverty and TANF?

3. **Political, economic and organizational environments for addressing priority health issues**
   - Need to become more effective/efficient due to reductions in capacity and funds
   - Need to adapt to the shift towards services provided outside of government
   - Lack of understanding among the general public about what public health means to them and their community.

4. **Macro-strategic directions for MCH**
   - Build and strengthen data capacity
   - Prioritize key program areas
   - Reduce work in non-priority areas
   - Maximize efficiency and capitalize on strengths
   - Create and strengthen partnerships across division and agency

5. **Programmatic organizational strategies**
   - Broaden Family Health Division perspective across all sections
   - Reinforce common activities to maximize outcomes
   - Use informed data to drive policy and program at state and local levels
   - Addressing health disparities is a major strategic opportunity for the Division. Disparities exist across many areas (e.g., economic, gender, race/ethnicity, rural/urban)

In addition, a broad assessment of the division's capacity in all areas across all essential services was a part of the work done by the division at the July 2003 Cast-5 retreat. Follow-up work on action plans from that assessment focused on data capacity (for more information n the Data Capacity Assessment see- Building Data Capacity, FH Project Report 2003-2004. However, several key points were captured that relate to areas of need. The list below contains some of the other organizational capacity needs that were identified including information systems, organizational relationships, staff competencies/skills, and other structural resources.

- **PRODUCE REPORTS AND COMMUNICATIONS**
  - Build on existing report development (e.g., annual report to legislature, health plan report cards) to better communicate population issues and public health contributions.
  - Integrate findings and lessons learned from existing "pockets of excellence" located within the Division, into the annual report.
  - Produce one targeted communication product (within one year) that would require working across the Division and externally, and the translation of data. Evaluate this effort and incorporate lessons learned into future communication products

- **IDENTIFY AND COMMUNICATE** the Division's CORE priority health issues across the various programs and activities

- **EDUCATE AND INFORM THE PUBLIC** and families about MCH issues, and the public health workforce.
  - Enhance consumer focus and involvement in programmatic and policy areas

- **IMPROVE FOCUS ON DISPARITIES/populations of color:**
  - Strengthen cultural competency by building on the WIC conference's cultural-related sessions.
  - Lack of full commitment to cultural and linguistic competency
  - Insufficient information on providers working with people/communities of color
  - Lack of attention to and funding for culturally sensitive care (translation, interpretation, etc.)

- **REVIEW AND CONSIDER PROGRAM EVALUATION** and the role of FH
    - MCSHN does not have routine evaluation
    - Health education activities are not based on assessment
    - High costs of evaluation and research are prohibitive for the Division and MCH

- Capitalize on the Division's ability to **DEVELOP AND PROMOTE PROTOCOLS AND BEST PRACTICES** to advance goals.
    - Draw on best practice program opportunities such as diabetes, newborn hearing screening, case review/mortality review methodology, and home visiting and health plan financing and collaboration.

- **Clear definition of PUBLIC HEALTH WORKFORCE COMPETENCIES**/skills needed
    - Enhanced attention to MDH professional development needs:
        - Targeting education to individual staff needs
        - Web-based training
        - Distance learning opportunities
        - Genetics and informatics training

- **INCREASE CROSS DIVISION, DEPARTMENT AND AGENCY LINKAGES for information sharing and improved communications:**

- **Improve ability to INFLUENCE THE POLICY MAKING process**
    - Coordinated/proactive review of relevant legislation across agencies

- **BUILD PUBLIC RELATIONS**
    - Consistency across programs
    - Better leveraging of department-wide efforts
    - Ability to provide technical assistance to local public health and tribal entities regarding building skills in facilitating community organization

As the division moves forward in planning whether it be by individual programs, for the MCH Title V Needs Assessment, or planning work of taskforces or advisory groups, the assessment work begun through the 2003 CAST-5 activity can serve as a basis for planning and development of action plans. The report Minnesota Capacity Assessment for State Title V (Cast-5) Final Report, September 2003 along with CAST-5 tools available on the AMCHP internet site can be key resources for ongoing capacity building activities for the division thereby assisting us in achieving our vision of Keeping all Minnesotans Healthy.

Background Information

Minnesota Department of Health April 2004

Family Health- Enhanced Data Capacity

The Family Health Division's (FH) mission is to protect, maintain and improve the health of women, children, youth, families and vulnerable populations. Our ability to understand the health status of the populations we serve helps us better plan, implement and evaluate public maternal and child health (MCH) programs .

To better understand our populations our strategy is to enhance our capacity to know and utilize quality data/information to inform public policy and programmatic decisions. We seek a vision where FH is a key and reliable resource for data relative to MCH populations and that we have the capacity, skills, staffing, technology and procedures, to support that vision.

In July 2003 a focused assessment was conducted utilizing a tool entitled CAST 5. This tool assists states in assessing capacity to meet the ten essential public health functions as they relate to MCH. Through a facilitated group process FH identified the following key areas that we should address.

- Leadership, Funding and Statutory Authority
  - To ensure an organizational structure, statutory authority and funding that supports activities that enhance data capacity
- Data and Analytic Skills
  - To identify data sources and gaps, to enhance data skills and to ensure data is managed and utilized in accordance with standards and guidelines
- Adequate Data Infrastructure
  - To ensure that FH acquires the necessary hardware, software and technical skills to maintain the infrastructure needed to support enhanced data activities
- Translation and Communication of Data
  - To enhance our translation and communication of data–based information so as to educate, influence policy and evaluate health outcomes and programs

Our objective is to create a plan that will help us achieve our overall vision. Components of this plan include identifying specific activities that will aid in creating a work environment that is conducive to utilization of data; identifying research and technical skills of staff and training activities to enhance those skills; identify and evaluating data sources both internal and external to the division; and to recommend how to coordinate and use data. The result desired is a plan to move us towards our vision using data to inform policy makers, to aid local public health plan and report activities, to evaluate the effectiveness of MCH programs both statewide and locally and to communicate to policy makers and constiuents about FH populations health status.

In March 2004, Janice Jones, was assigned as the project manager for this activity. Cross-divisional work teams have been established for each of the key areas. Timelines for completion of this project are under discussion with the FH Executive Team.

For more information

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For information on CAST 5
See reverse or go to
www.jhsph.edu/wchpc/projects/cast5.html

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The Family Health Division's (FH) mission is to protect, maintain and improve the health of women, children, youth, families and vulnerable populations. Our ability to understand the health status of the populations we serve helps us better plan, implement and evaluate public maternal and child health (MCH) programs .

To better understand our populations our strategy is to enhance our capacity to know and utilize quality data/information to inform public policy and programmatic decisions. We seek a vision where FH is a key and reliable resource for data relative to MCH populations and that we have the capacity, skills, staffing, technology and procedures, to support that vision.

In July 2003 a focused assessment was conducted utilizing a tool entitled CAST 5. This tool assists states in assessing capacity to meet the ten essential public health functions as they relate to MCH. Through a facilitated group process FH identified the following key areas that we should address.

- Leadership, Funding and Statutory Authority
  - To ensure an organizational structure, statutory authority and funding that supports activities that enhance data capacity
- Data and Analytic Skills
  - To identify data sources and gaps, to enhance data skills and to ensure data is managed and utilized in accordance with standards and guidelines
- Adequate Data Infrastructure
  - To ensure that FH acquires the necessary hardware, software and technical skills to maintain the infrastructure needed to support enhanced data activities
- Translation and Communication of Data
  - To enhance our translation and communication of data–based information so as to educate, influence policy and evaluate health outcomes and programs

Our objective is to create a plan that will help us achieve our overall vision. Components of this plan include identifying specific activities that will aid in creating a work environment that is conducive to utilization of data; identifying research and technical skills of staff and training activities to enhance those skills; identify and evaluating data sources both internal and external to the division; and to recommend how to coordinate and use data. The result desired is a plan to move us towards our vision using data to inform policy makers, to aid local public health plan and report activities, to evaluate the effectiveness of MCH programs both statewide and locally and to communicate to policy makers and constiuents about FH populations health status.

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CAST-5: Capacity Assessment for State Title V

At the request of states, the Johns Hopkins Women's and Children's Health Policy Center (WCHPC) and the Association of Maternal and Child Health Programs (AMCHP) developed a tool for capacity self-assessment and planning by state Title V programs. Potential uses for the tool, as identified by state MCH leaders, include guidance in conceptualizing the public MCH mission in a changing health care environment and transitioning to core public health functions; as part of a strategic planning process; and as an adjunct to continuous quality improvement activities.

This assessment approach links performance of the MCH essential services with related organizational resources. The organizational capacities that can be assessed include information systems, data/analytic capacity, organizational relationships, staff competencies/skills, and other structural resources that support performance of core functions.

CAST-5 fits into the larger long-term planning environment for MCH programs, and is meant to answer the questions "what do we have" and "what do we need to get the job done." It assists state Title V programs in determining what organizational, programmatic, and management resources must be developed or enhanced, given what the program does, in order to fulfill the program's goals and objectives.

CAST-5 is comprised of a series of tools. *The Core Questions* represent the fundamental level of Title V program functioning, and prompt the agency to determine if it is meeting some basic operational requirements, and provide a context for the program's responses in the subsequent CAST-5 tools. *The Review of the Ten Maternal and Child Health Essential Services* provides an opportunity for the state's CAST-5 team members to begin the CAST-5 process with a common understanding of the ten essential services. *The Process Indicators* represent program output and activities corresponding to the 10 MCH Essential Services at the state level. *The Capacity Needs* represent organizational resources that are needed to adequately perform the activity or output identified in the *Process Indicators* for each Essential Service. The SWON Analysis worksheet provides an opportunity to identify the internal and external strengths, weaknesses, opportunities, and needs (SWON) that are relevant to undertaking or enhancing the specified function. Capacity Needs are then summarized across the four domains cited above. Using the information gathered above, an Action Plan can be developed.

CAST-5 is designed to correspond to the state-level public health performance assessment instrument from CDC and ASTHO as part of the National Public Health Performance Standards Program. Both instruments are framed around the 10 Essential Services, and both measure similar program activities, outputs and capacities. However, CAST-5 is tailored to the MCH mission, using the MCH-specific Essential Services and geared toward the specific needs of Title V agencies. In addition, CAST-5 takes as its primary focus identification of and planning related to program capacity needs.

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